U.S. Department of the Interior
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**Volume 2: Acronyms, Glossary, Literature Cited, and Appendices A–W**

# Rock Springs Field Office

## Proposed Resource Management Plan and Final Environmental Impact Statement

BLM MISSION

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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# Rock Springs Field Office

## Proposed Resource Management Plan

## and

## Final Environmental Impact Statement

## August 2024

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## VOLUME 2

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# LIST OF ACRONYMS

| | |
|---|---|
| 2016 GHG Guidance | Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews |
| ACEC | Area of Critical Environmental Concern |
| ACHP | Advisory Council on Historic Preservation |
| AIM | Assessment, Inventory and Monitoring |
| AIRFA | American Indian Religious Freedom Act |
| AML | Appropriate Management Level |
| AMP | Allotment Management Plan |
| AMR | Appropriate Management Response |
| AMS | Analysis of the Management Situation |
| ANC | Acid Neutralizing Capacity |
| ANSI | American National Standard Institute |
| AO | Authorized Officer |
| APD | Application for Permit to Drill |
| APE | Area of Potential Effects |
| APHIS-WS | Animal and Plant Health Inspection Service—Wildlife Services |
| APLIC | Avian Powerline Interaction Committee |
| AQRV | Air Quality Related Values |
| ARMPA | Approved Resource Management Plan Amendment |
| ARPA | Archaeological Resource Protection Act |
| ASRC | Areas of Significant Resource Concern |
| ATV | All-Terrain Vehicle |
| AUM | Animal Unit Months |
| BA | Biological Assessment |
| BACT | Best Available Control Technology |

| | |
|---|---|
| BAER | Burn Area Emergency Rehabilitation |
| BAR | Burned Area Rehabilitation |
| BBS | Breeding Bird Survey |
| Bcf | Billion Cubic Feet |
| BLM | Bureau of Land Management |
| BMP | Best Management Practices |
| BO | Biological Opinion |
| BOR | Bureau of Reclamation |
| BpS | Biophysical Setting |
| CAA | Clean Air Act |
| CAP | Coordinated Activity Plan |
| CAS | Conservation Agreements and Strategies |
| CASTNet | Clean Air Status and Trends Network |
| CBNG | Coalbed Natural Gas |
| CCAA | Candidate Conservation Agreement with Assurances |
| CCF | Hundred Cubic Feet |
| CDNST | Continental Divide National Scenic Trail |
| CDP | Census-Designated Place |
| CDPA | Coal Development Potential Area |
| CEQ | Council on Environmental Quality |
| CF | Cubic Feet |
| CFR | Code of Federal Regulations |
| CFS | Cubic Feet per Second |
| CIAA | Cumulative Impact Analysis Area |
| CO | Carbon Monoxide |
| COA | Condition of Approval |
| COT | Conservation Objectives Team |

| | |
|---|---|
| CRMP | Cultural Resource Management Plan |
| CSU | Controlled Surface Use |
| CTTMP | Comprehensive Travel and Transportation Management Plan |
| dBA | A-weighted Decibel |
| DDCT | Density and Disturbance Calculation Tool |
| DFC | Desired Future Condition |
| DOA | Department of Agriculture |
| DOE | Department of Energy |
| DOI | Department of the Interior |
| DPC | Desired Plant Community |
| Dv | Deciview |
| EA | Environmental Assessment |
| EEA | Environmental Education Area |
| EIS | Environmental Impact Statement |
| EJ | Environmental Justice |
| EO | Executive Order |
| EPA | Environmental Protection Agency |
| ERMA | Extensive Recreation Management Area |
| ES&R | Emergency Stabilization and Rehabilitation |
| ESA | Endangered Species Act |
| ESD | Ecological Site Descriptions |
| EVT | Existing Vegetation Type |
| FAA | Federal Aviation Administration |
| FCC | Federal Communications Commission |
| FLAG | Federal Land Managers' Air Quality Related Values Workgroup |
| FLPMA | Federal Land Policy and Management Act of 1976 |
| FLTFA | Federal Land Transaction Facilitation Act |

| | |
|---|---|
| FMA | Forest Management Areas |
| FRCC | Fire Regime Condition Class |
| FUP | Free Use Permits |
| FYPC | Fossil Yield Potential Classification |
| GA | Geographic Area |
| GAP | Geographical Analysis Program |
| GHG | Greenhouse Gas |
| GHMA | General Habitat Management Area |
| GIS | Geographic Information System |
| HAF | Habitat Assessment Framework |
| HAP | Hazardous Air Pollutants |
| HBP | Held by Production |
| HMA | Herd Management Area |
| HMAP | Herd Management Area Plans |
| HMP | Habitat Management Plan |
| HUC | Hydrologic Unit Code |
| IDT | Interdisciplinary Team |
| IM | Instruction Memorandum |
| IMP | Interim Management Policy |
| IMPLAN | IMpact analysis for PLANning |
| IMPROVE | Interagency Monitoring of Protected Visual Environments |
| INRMP | Integrated Natural Resource Management Plan |
| IRAC | Interagency Radio Advisory Committee |
| ISR | In Situ Recovery |
| IWG | Interagency Working Group |
| JMH | Jack Morrow Hills |
| KSLA | Known Sodium Leasing Area |

| | |
|---|---|
| LAU | Lynx Analysis Unit |
| LBA | Lease by Application |
| LEX | Land Exchange |
| LOC | Level of Concern |
| LUP | Land Use Plan |
| MA | Management Area |
| MBTA | Migratory Bird Treaty Act |
| Mcf | Thousand Cubic Feet |
| MET | Meteorological Towers |
| MIS | Management Indicator Species |
| MLA | Mineral Leasing Act of 1920 |
| MMS | Minerals Management Service |
| MMTA | Mechanically Mineable Trona Area |
| MOA | Memorandum of Agreement |
| MOU | Memorandum of Understanding |
| MS | Mitigation Strategy |
| MSL | Mean Sea Level |
| MUTCD | Manual on Uniform Traffic Control Devices |
| MVUM | Motor Vehicle Use Map |
| MW | Megawatt |
| NAAQS | National Ambient Air Quality Standard |
| NADP | National Atmospheric Deposition Program |
| NAGPRA | Native American Graves Protection and Repatriation Act |
| NASA | National Aeronautic Space Administration |
| NDD | National Diversity Database |
| NEC | National Electrical Code |
| NEPA | National Environmental Policy Act of 1969 |

| | |
|---|---|
| NFMA | National Forest Management Act of 1976 |
| NFS | National Forest System |
| NFSR | National Forest System Road |
| NHN | Natural Heritage Network |
| NHPA | National Historic Preservation Act of 1966 |
| NHT | National Historic Trail |
| NMFS | National Marine Fisheries Service |
| NNL | National Natural Landmark |
| NOA | Notice of Availability |
| NOAA | National Oceanic and Atmospheric Administration |
| NOI | Notice of Intent |
| NPS | National Park Service |
| NRA | National Recreation Area |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NSO | No Surface Occupancy |
| NST | National Scenic Trail |
| NTIA | National Telecommunication and Information Administration |
| NTN | National Trend Network |
| NTT | National Technical Team |
| NVUM | National Visitor Use Monitoring |
| NWI | National Wetlands Inventory |
| OHV | Off-Highway Vehicle |
| ORV | Off-Road Vehicle |
| PA | Programmatic Agreement |
| PAC | Priority Areas for Conservation |
| PFC | Proper Functioning Condition |

| | |
|---|---|
| PFYC | Potential Fossil Yield Classification |
| PHMA | Priority Habitat Management Area |
| PILT | Payment in Lieu of Taxes |
| PNC | Potential Natural Community |
| PRPA | Paleontological Resource Preservation Act |
| PSD | Prevention of Significant Deterioration |
| PZP | Porcine Zona Pellucida |
| R&PP | Recreation and Public Purposes |
| RAAT | Reduced Agent-Area Treatments |
| RD&D | Research Development and Demonstration |
| RDF | Required Design Features |
| RFD | Reasonable Foreseeable Development |
| RFR | Radio Frequency Radiation |
| RMA | Recreation Management Area |
| RMIS | Recreation Management Information System |
| RMP | Resource Management Plan |
| RMZ | Recreation Management Zone |
| ROD | Record of Decision |
| ROS | Recreation Opportunity Spectrum |
| ROW | Right-of-Way |
| RPA | Renewable Resource Planning Act |
| RS | Revised Statute |
| RSFO | Rock Springs Field Office |
| RSUA | Recreation Special Use Authorization |
| S&G | Standards and Guidelines |
| SAD | Sudden Aspen Decline |
| SC-$CH_4$ | Social cost of methane |

| | |
|---|---|
| SC-$CO_2$ | Social cost of carbon dioxide |
| SC-GHG | Social cost of greenhouse gases |
| SC-$N_2O$ | Social cost of nitrous oxide |
| SCC | Social Cost of Carbon |
| Scf | Standard Cubic Feet |
| SD/MA | Special Designations/Management Areas |
| SDR | State Director Review |
| SDW | Stock Driveways |
| SDWA | Safe Drinking Water Act |
| SFA | Sagebrush Focal Area |
| SGIT | Sage-Grouse Implementation Team |
| SHPO | State Historic Preservation Office or Officer |
| SIA | Special Interest Area |
| SIO | Scenic Integrity Objective |
| SRMA | Special Recreation Management Area |
| SRP | Special Recreational Permit |
| SSC | Species of Special Concern |
| SUP | Special Use Permit |
| SUPO | Surface Use Plan of Operations |
| SUV | Sport Utility Vehicle |
| SVR | Standard Visual Range |
| T&C | Terms and Conditions |
| T&E | Threatened and Endangered |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TCP | Traditional Cultural Property |
| TES | Threatened and Endangered Species |
| THPO | Tribal Historic Preservation Office or Officer |

| | |
|---|---|
| TLD | Transportation Linear Disturbance |
| TLS | Timing Limitation Stipulation |
| TMDL | Total Maximum Daily Load |
| UGRBWGA | Upper Green River Basin Working Group Area |
| USC | United States Code |
| USDA | United States Department of Agriculture |
| USFS | United States Forest Service |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| VOC | Volatile Organic Compounds |
| VQO | Visual Quality Objective |
| VRI | Visual Resource Inventory |
| VRM | Visual Resource Management |
| WA | Wilderness Act |
| WAAQS | Wyoming Ambient Air Quality Standards |
| WAFWA | Western Association of Fish and Wildlife Agencies |
| WAPA | Western Area Power Administration |
| WARMS | Wyoming Air Resources Monitoring System |
| WDEQ | Wyoming Department of Environmental Quality |
| WDEQ-AQD | Wyoming Department of Environmental Quality-Air Quality Division |
| WGFD | Wyoming Game and Fish Department |
| WGO | Wyoming Governor's Office |
| WHBA | Wild Free-Roaming Horses and Burros Act of 1971 |
| WHMA | Wildlife Habitat Management Area |
| WHT | Wild Horse Territories |
| WHTP | Wild Horse Territory Plans |
| WIZ | Water Influence Zone |

| | |
|---|---|
| WLCI | Wyoming Landscape Conservation Initiative |
| WOGCC | Wyoming Oil and Gas Conservation Commission |
| WPCI | Wyoming Pipeline Corridor Initiative Project |
| WSA | Wilderness Study Area |
| WSO-RMG | Wyoming BLM State Office-Reservoir Management Group |
| WSR | Wild and Scenic River |
| WUG | Western Utility Group |
| WUI | Wildland Urban Interface |
| WWEC | West-Wide Energy Corridor |
| WYDOT | Wyoming Department of Transportation |
| WYESFO | Wyoming Ecological Services Field Office |
| WYL | Winter Yearlong |
| WYNDD | Wyoming Natural Diversity Database |
| YRL | Yearlong |

# GLOSSARY

**2008 WAFWA Sage-grouse MOU:** A memorandum of understanding (MOU) among Western Association of Fish and Wildlife Agencies, U.S. Department of Agriculture, Forest Service, U.S. Department of the Interior, Bureau of Land Management, U.S. Department of the Interior, Fish and Wildlife Service, U.S. Department of the Interior, Geological Survey, U.S. Department of Agriculture, Natural Resources Conservation Service, and the U.S. Department of Agriculture, Farm Service Agency. The purpose of the MOU is to provide for cooperation among the participating state and federal land, wildlife management and science agencies in the conservation and management of sage-grouse (Centrocercus urophasianus) sagebrush (Artemisia spp.) habitats and other sagebrush-dependent wildlife throughout the western United States and Canada and a commitment of all agencies to implement the 2006 WAFWA Conservation Strategy.

**Acquired Lands:** Federal lands obtained by purchase, condemnation, exchange, or gift under laws other than public land laws. Legally defined as: "… land obtained by the United States through purchase or transfer from a State or private individual and normally dedicated to a specific use." McKenna v. Wallis, 200 F. Supp. 468 (1961). See also Bobby Lee Moore, et al, 72 I.D. 505 (1965).

**Actively Managed:** Management of the forestlands or woodlands by prescription to accomplish specific resource objectives. In addition, the forestlands are managed with an allowable sustainable periodic sale quantity.

**Activity Area:** An area of land impacted by a management activity or activities. It can range from a few acres to an entire watershed. It is commonly a timber sale cutting unit, a burn unit, or a pasture in an allotment.

**Activity Planning:** Site-specific planning that precedes development. This is the most detailed level of Bureau of Land Management (BLM) planning. An activity plan details management of one or more resources on a specific site. Examples are allotment management plans and recreation area management plans. Activity plans implement decisions made in the Resource Management Plan (RMP).

**Actual Use:** Where, how many, what kind or class of livestock, and how long livestock graze on an allotment or on a portion or pasture of an allotment.

**Adaptive Management:** A systematic process for continually improving management policies and practices by learning from the outcomes of actions over time. It employs management programs that are designed to continuously compare selected policies or practices and is an integrated method for addressing uncertainty that focuses on implementing actions, thoroughly monitoring results, and modifying actions when warranted. It recognizes that the complex interrelationships of physical, biological, and social components of the ecosystem and how they would react to land management practices are often not fully understood when land-use management plans are developed.

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project (BLM Manual Section 1794).

**Administrative Access:** Access for resource management and administrative purposes such as fire suppression, cadastral surveys, permit compliance, law enforcement, and military in the performance of their official duty, or other access needed to manage BLM-administered lands or uses.

**Age Class:** A distinct aggregation of trees originating from a single natural event or regeneration activity, or grouping of trees, e.g. 10-year age class, as used in inventory or management.

**Allotment:** An area of land designated and managed for livestock grazing. Allotments generally consist of BLM-administered lands but may include other federally managed, state-owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

**Allotment Management Plan (AMP):** A documented program developed as an activity plan, consistent with the definition at 43 USC 1702(k), that focuses on, and contains the necessary instructions for, management of livestock grazing on specified public lands to meet resource condition, sustained yield, multiple use, economic, and other objectives.

**Allowable Sale Quantity (ASQ):** The quantity of timber that may be sold from the area of suitable land covered by the forest plan for a time period specified by the plan. This allowable sale quantity (ASQ) is usually expressed on an annual basis as the "average annual allowable sale quantity." (FSM 1900)

**Alluvium:** Any sediment deposited by flowing water, as in a river bed, floodplain, or delta.

**Ambient (noise level):** Sometimes called background noise level, reference sound level, or room noise level is the background sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source.

**Amendment:** The process for considering or making changes in the terms, conditions, and decisions of approved RMPs or Management Framework Plans using the prescribed provisions for resource management planning appropriate to the proposed action or circumstances. Usually only one or two issues are considered that involve only a portion of the planning area.

**Animal Damage Control (ADC):** The control of animals that are causing economic losses to agriculture, damage to property, or hazards to human health. Such control usually results in the killing of the offending animal(s). (See also Wildlife Services.)

**Animal Unit:** Considered to be one mature cow of about 1,000 pounds (450 kg), either dry or with calf up to six months of age, or their equivalent, consuming about 26 pounds of forage/day on an oven dry basis.

**Animal Unit Month (AUM):** The amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month (43 CFR 4100.0-5). For the purpose of calculating grazing fees, an animal unit month is defined as a month's use and occupancy of range by one cow, bull, steer, heifer, horse, burro, mule, five sheep or five goats over the age of six months (43 CFR 4130.8-1(c)).

**Anthropogenic Disturbances:** Human-created features that include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells and associated facilities, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines.

**Application for Permit to Drill (APD):** An application to drill a well submitted by a lessee or operator to the BLM. The APD consists of a Drilling Plan that discusses downhole specifications and procedures (reviewed by the BLM) that examines surface uses, including access roads, well site layout, cut and fill diagrams, reclamation procedures, production facility locations, etc.

**Aquatic Ecosystem:** Waters of the United States, that serve as habitat for interrelated and interacting communities and populations of plants and animals. (40 CFR 230.3) Waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals. (FSM 2526.05)

**Aquifer Recharge Area:** An aquifer is a layer of underground rock or sand that stores and carries water. A recharge area is the place where water is able to seep into the ground and refill an aquifer because no confining layer is present. Recharge areas are necessary for a healthy aquifer.

**Area of Critical Environmental Concern (ACEC):** Areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. The identification of a potential ACEC shall not, of itself, change or prevent change of the management or use of public lands.

**Assessment:** The act of evaluating and interpreting data and information for a defined purpose.

**Authorized/Authorized Use:** This is an activity (i.e., resource use) occurring on the public lands that is either explicitly or implicitly recognized and legalized by law or regulation. This term may refer to those activities occurring on the public lands for which the BLM or other appropriate authority (e.g., Congress for RS 2477 rights-of-way, FERC for major, interstate rights-of-way), has issued a formal authorization document (e.g., livestock grazing lease/permit; right-of-way grant; coal lease; oil and gas permit to drill; etc.). Formal authorized uses can involve both commercial and noncommercial activity, facility placement, or event. These authorized uses are often spatially or temporally limited. Unless constrained or bounded by statute, regulation, or an approved land use plan decision, legal activities involving public enjoyment and use of the public lands (e.g., hiking, camping, hunting, etc.) require no formal BLM authorization.

**Authorized Officer:** Any employee of the BLM to whom authority has been delegated to perform the duties described.

**Available Lands (Oil and Gas):** Any lands subject to oil and gas leasing under the Minerals Leasing Act.

**Avoidance/Avoidance Area:** These terms usually address mitigation of some activity (i.e., resource use). Paraphrasing the CEQ Regulations (40 CFR 1508.20), avoidance means to circumvent, or bypass, an impact altogether by not taking a certain action, or parts of an action. Therefore, the term "avoidance" does not necessarily prohibit a proposed activity, but it may require the relocation of an action, or the total redesign of an action to eliminate any potential impacts resulting from it.

**Avoidance Mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action (40 CFR 1508.20(a)) (e.g., may also include avoiding the impact by moving the proposed action to a different time or location).

**Baseline:** The pre-existing condition of a defined area and/or resource that can be quantified by an appropriate metric(s). During environmental reviews, the baseline is considered the affected environment that exists at the time of the review’s initiation, and is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

**Best Management Practices (BMPs):** A suite of techniques that guide or may be applied to management actions to aide in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a planning decision unless the plans and authorizations specify that they are mandatory. BMPs may be updated or modified without a plan amendment (BLM Manual Handbook H-1601-1).

**Big Game:** Large species of wildlife that are hunted, such as elk, deer, bighorn sheep, moose, and pronghorn.

**Billed Use:** The amount of livestock use that grazing permit holders were actually billed for in a given year.

**Biological Assessment (BA):** The gathering and evaluation of information on proposed endangered and threatened species and critical habitat and proposed critical habitat. Required when a management action potentially conflicts with endangered or threatened species, the BA is the way federal agencies enter into formal consultation with the U.S. Fish and Wildlife Service and describe a proposed action and the consequences to the species from the action.

**Biological Diversity:** The variety of life forms and processes within an area. Included in the consideration of diversity are the complexities of genetic variation, number and distribution of species, and the ways in which the variety of biologic communities interact and function.

**Biotic:** All the natural living organisms in a planning area and their life processes.

**Board Foot:** A unit of solid wood one foot square and one inch thick.

**Bureau Sensitive Species:** species that require special management consideration to avoid potential future listing under the ESA and that have been identified in accordance with procedures set forth in BLM Manual 6840 – Special Status Species Management. Candidate Species: Plants and animals for which the U.S. Fish and Wildlife Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

**Canopy:** The uppermost layer consisting of the crowns of trees or shrubs in a forest or woodland.

**Casual Use:** Casual use means activities ordinarily resulting in no or negligible disturbance of the public lands, resources, or improvements for example, activities that do not involve the use of mechanized earth-moving equipment or explosives or, in areas designated as closed to OHVs, do not involve the use of motorized vehicles. This can also be activities occurring by chance or taking place at irregular intervals without ceremony or formality. Examples for rights of ways, see 43 CFR 2801.5 or 2881.5. The definition related to 3809-surface management of locatable minerals is found at 43 CFR 3809.5. Other activities which do not unduly disturb surface resources. If, however, the Authorized Officer determines that appreciable impacts to surface resources may occur, he/she may require the potential applicant to obtain a land use authorization with appropriate terms and conditions.

**Channel:** An open conduit either naturally or artificially created that periodically or continuously transports moving water (and, in natural systems, also transports sediment, nutrients, and woody material) or forms a connecting link between two bodies of water.

**Checkerboard:** This term refers to a land ownership pattern of alternating sections of federal-owned lands with private or state-owned lands for 20 miles on either side of a land grant railroad (e.g. Union Pacific, Northern Pacific, etc.). On land status maps this alternating ownership is either delineated by color coding or alphabetic code resulting in a "checkerboard" visual pattern.

**Cherry-stemmed/Cherry-stemming:** This term refers to a narrow, linear, intrusion or extrusion of a delineated block of Federal lands resulting in what appears on a map as a boundary inlet or peninsula. Although this term may be used in any resource program, the most common use is in relation to dead- end road intrusions along WSA boundaries.

**Closed:** Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

**Closed Area or Trail:** Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. The use of off-road vehicles in closed areas may be allowed only with the approval of the Authorized Officer.

**"Closed" Designation (OHV):** An area where off-highway vehicle use is prohibited. Use of off-highway vehicle in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the Authorized Officer.

**Closed Road:** A road or segment of road that is restricted from certain types of use during certain seasons of the year. The prohibited use and the time period of closure are specified.

**Code of Federal Regulations (CFR):** The official, legal tabulation or regulations directing Federal Government activities.

**Collaboration:** Working together, sometimes with individuals or groups of opposing points a view, to reach a common agreement.

**Co-locate:** Installation of new linear improvements (e.g., equipment or facilities) on or within existing linear improvements.

**Commercial Forestland:** Forestland that is now producing or is capable of producing at least 20 cubic feet of wood fiber per acre per year from commercial coniferous tree species and that has met certain economic, environmental, or multiple use criteria for inclusion in the commercial forestland base.

**Commodity:** An economic good such as a product of agriculture or mining.

**Common Variety Minerals:** Category of minerals including varieties of sand, gravel, stone, pumicite, cinders, pumice (except that occurring in pieces over 2 inches on a side), clay, and petrified wood; authorized under the 1947 Materials Act and the 1955 Multiple Surface Use Act for sale as "salable minerals". (FSM 2800)

**Communication Site:** A site right-of-way that includes broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast translator) and non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, passive reflector).

**Community:** An assemblage of plant, animal, and/or human populations in a common spatial arrangement.

**Compensatory Mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

**Compensatory Mitigation Projects:** Specific, on-the-ground actions to improve and/or protect habitats (e.g., chemical vegetation treatments, land acquisitions, conservation easements).

**Compensatory Mitigation Sites:** The durable areas where compensatory mitigation projects will occur.

**Condition of Approval:** Condition or provision (requirement) under which an application for a permit to drill or sundry notice is approved.

**Conformance:** That a proposed action shall be specifically provided for in the land use plan or, if not specifically mentioned, shall be clearly consistent with the goals, objectives, or standards of the approved land use plan.

**Connectivity:** Condition in which the spatial arrangement of land cover types allows organisms and ecological processes (such as disturbance) to move across the landscape. Connectivity is the opposite of fragmentation.

**Conservation Plan:** The recorded decisions of a landowner or operator, cooperating with a conservation district, on how the landowner or operator plans, within practical limits, to use his/her land according to its

capability and to treat it according to its needs for maintenance or improvement of the soil, water, animal, plant, and air resources.

**Consistency:** The proposed land use plan does not conflict with officially approved plans, programs, and policies of tribes, other federal agencies, and state, and local governments to the extent practical within Federal law, regulation, and policy.

**Contributing Segment:** A trail segment that contributes to the significance of the trail, wherein it retains integrity of place, setting, feel, or association. This may include an intact trail segment, a good two-track, an intact (unspoiled) setting, or a good historical association; thus, these trail segments retain elements that convey the nineteenth century "feel" to the visitor. If a piece of trail is destroyed, such as by a paved road, and the setting is compromised, then the trail segment is noncontributing.

**Controlled Surface Use (CSU):** A category of moderate constraint stipulations that allows some use and occupancy of public land while protecting identified resources or values and is applicable to fluid mineral leasing and all activities associated with fluid mineral leasing. The stipulation identifies the location protected, activities prohibited or restricted, and the resources protected. The extent of protection may range from a limited area for only one activity to all uses. Typically used in use authorizations. For the protected resource, some activities may be prohibited while others are allowed. Activities may be allowed but only under certain conditions. Examples include (1) seismic operations are prohibited within a certain distance of an unstable resource (i.e., historic structure) and (2) only tracked construction vehicles are allowed access to the site (see also Stipulation Category).

**Corridor:** A tract of land forming a passageway or designation for linear utilities, transportation, Right-of-Way, multiple pipelines (such as for oil and gas), electricity transmission lines and related infrastructure, recreation and trails, and wildlife migration. See definitions: Designated Corridor, Right-of-Way Corridor, Utility Corridor, and Utility Window.

**Council on Environmental Quality (CEQ):** An advisory council to the President of the United States established by the national Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

**Cover:** Cover is any part of an animal's environment that provides protection and enhances the survival or reproduction of the animal. Wildlife cover has two components:

- It provides shelter from adverse weather conditions (winter or thermal cover), and
- It provides protection from predators (screening or escape cover).

**Critical Habitat:** An area occupied by a threatened or endangered species "on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection." These irreplaceable and vital areas are designated as critical by the Secretary of the Interior for the survival and recovery of listed threatened and endangered species.

**Crucial Habitat:** Any particular range or habitat component that directly limits a community, population, or subpopulation to reproduce, and maintain itself at a certain level over the long term.

**Crucial Winter Range:** The portion of the winter range to which a wildlife species is confined during periods of heaviest snow cover. Any portion of winter range that is the determining factor in a population's ability to maintain and reproduce itself at a certain level over the long term may be crucial winter range.

**Cultural Resource:** A fragile and nonrenewable remnant of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, or natural features.

**Cultural Resource Inventory:** A descriptive listing and documentation, including photographs and maps, of cultural resources. Processes involved are locating, identifying, and recording of sites, structures, buildings, objects, and districts through library and archival research; collecting information from persons knowledgeable about cultural resources; and conducting on-the-ground field surveys of varying levels of intensity. (See also Cultural Resource Inventory Classes.)

**Cultural Resource Inventory Classes:** A class I inventory is a professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature, and a management-focused, interpretive, narrative overview, and synthesis of the data. The overview also defines regional research questions and treatment options.

A class II probabilistic field survey is a statistically based sample survey, designed to aid in characterizing the probable density, diversity, and distribution of cultural properties in an area, to develop and test predictive models, and to answer certain kinds of research questions. Within individual sample units, survey aims, methods, and intensity are the same as those applied in class III survey.

A class III intensive survey describes the distribution of properties in an area; determines the number, location and condition of properties; determines the types of properties actually present within the area; permits classification of individual properties; and records the physical extent of specific properties.

**Cultural Resource Management Plan (CRMP):** A plan designed to inventory, evaluate, protect, preserve, or make beneficial use of cultural resources and the natural resources that figured significantly in cultural systems. The objectives of such plans are the conservation, preservation, and protection of cultural values and the scientific study of those values.

**Cultural Resource Site (Cultural Property):** A definite location of human activity, occupation or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups.

**Cumulative Impact (Effect):** The impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

**Deferred/Deferred Use:** To set-aside, or postpone, a particular resource use(s) or activity(ies) on the public lands to a later time. Generally, when this term is used the period of the deferral is specified. Deferments sometimes follow the sequence timeframe of associated serial actions (e.g., action B will be deferred until action A is completed, etc.).

**Designated Corridor:** A parcel of land with specific boundaries identified by law, a Secretarial Order, the land use planning process or other management decisions as being preferred locations for existing and future ROWs. Established and new corridor(s) may be suitable to accommodate more than one type of ROW or more ROWs that are similar, identical, or compatible. (see Corridor definition)

**Designated Roads and Trails:** Those roads and trails that are specifically identified by the BLM as the only allowable routes for motor vehicle travel in the specific area involved. Travel on designated roads and

trails may be allowed seasonally or yearlong. Additional roads or trails may be constructed and authorized for travel as need dictates in conformance with the land use plan or activity plan.

**Desired Condition:** Alluvial stream channels (i.e., those not formed in bedrock) are considered to be physically functioning properly when they can adjust their form and gradient, over a period of time, to transport the water, wood, and sediment being delivered to them. They are resilient to disturbance. Channel cross-section form is generally maintained, even with lateral migration of the channel, or is moving toward a form that allows for improved channel function. Instream levels of fine sediment are within a natural range except for short periods of time after disturbance. Stream bank stability reflects stream type and potential.

**Desired Future Condition:** A future land or resource condition that achieves a set of compatible multi-resource goals and objectives.

**Desired Plant Community:** The vegetation community that provides the vegetation attributes required for meeting or exceeding RMP vegetation objectives. The desired vegetation community must be within an ecological site's capability to produce these attributes through natural succession, management action, or both (BLM Wyoming Instruction Memorandum 91-290, May 29, 1991).

**Developed Recreation:** Recreation that requires facilities, resulting in concentrated use of an area. An example of a developed recreational site is a campground. Facilities might include roads, parking lots, picnic tables, restrooms, drinking water, and buildings.

**Development:** Active drilling and production of wells.

**Development Area:** Areas primarily leased with active drilling and wells capable of production in payable quantities.

**Direct Impacts (Effects):** Direct impacts are caused by the action and occur at the same time and place.

**Directional Drilling (Oil and Gas):** Drilling boreholes with the directional course of the hole planned before drilling. Such holes are usually drilled with rotary equipment at an angle to the vertical and are useful in avoiding obstacles or in reaching side areas or the mineral estate beneath a restricted surface.

**Discharge (Water):** The rate of flow or volume of water flowing in a stream at a given place or within a given period of time.

**Discovery:** The knowledge of the presence of valuable minerals within or close enough to a location to justify a reasonable belief in their existence. Discovery is extremely important to public lands mining because the Mining Law of 1872 provides that mining claims can be located only after a discovery is made.

**Dispersal:** The movement, usually one way and on any time scale, of plants or animals from their point of origin to another location where they subsequently produce offspring.

**Dispersed Recreation:** Recreational use outside developed recreational sites. This includes activities such as scenic driving, hiking, bicycling, backpacking, hunting, fishing, snowmobiling, horseback riding, cross-country skiing, and recreation in primitive environments.

**Disposal:** Transfer of ownership of a tract of public land from the United States to another party through sale, exchange, or transfer under the Recreation and Public Purposes Act, Small Tracts Act, Bankhead-Jones Farm Tenant Act, General Exchange Act or other appropriate authorities.

**Disruptive Activities:** Land resource uses/activities that are likely to alter the behavior, displace, or cause excessive stress to existing animal or human populations occurring at a specific location and/or time. In this context, disruptive activity/activities refers to those actions that alter behavior or cause the displacement of individuals such that reproductive success is negatively affected, or an individual's physiological ability to cope with environmental stress is compromised. This term does not apply to the physical disturbance of the land surface, vegetation, or features. When administered as a land use restriction (e.g., No Disruptive Activities), this term may prohibit or limit the physical presence of sound above ambient levels, light beyond background levels, and/or the nearness of people and their activities. The term is commonly used in conjunction with protecting wildlife during crucial life stages (e.g., breeding, nesting, birthing, etc.), although it could apply to any resource value on the public lands. The use of this land use restriction is not intended to prohibit all activity or authorized uses. For actions other than those taken for human health and safety, regulatory compliance or emergency, an activity is "disruptive" if the activity would require people and/or the structure or activity to be present in these habitats for a duration of more than one hour during any one 24-hour period during the applicable season in the site-specific area.

**Distribution Line:** An electrical utility line with a capacity of less than 100 kV or a natural gas, hydrogen, or water pipeline less than 24" in diameter.

**Disturbance:** A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system.

**Diurnal:** Describes a cyclic event recurring daily; or the nature or habit of an organism to be active during daylight hours.

**Diversity:** The distribution and relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

**Drainage (Oil and Gas):** 1) Drainage occurs when oil and gas migrate in the subsurface from areas of high pressure to areas of lower pressure, such as is found near a producing well. 2) Production of migrated oil and gas without compensation to the owner and/or lessee from whose estate the hydrocarbons moved is called drainage.

**Durability (Protective and Ecological):** The administrative, legal, and financial assurances that secure and protect the conservation status of a compensatory mitigation site, and the ecological benefits of a compensatory mitigation project, for at least as long as the associated impacts persist (BLM Manual Section 1794).

**Easement:** A right held by a person or agency to make limited use of another's real property for access or other purposes.

**Ecological Site:** A kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in that the site has the ability to produce distinctive kinds and amounts of vegetation and to respond to management. Ecological sites are defined and described with information about soil, species composition, and annual production.

**Ecological Site Descriptions (ESDs):** Are reports that provide detailed information about a particular kind of land - a distinctive Ecological Site. ESDs provide land managers the information needed for evaluating the land as to suitability for various land-uses, capability to respond to different management activities or disturbance processes, and ability to sustain productivity over the long term. ESD information is presented in four major sections: 1) Site Characteristics - physiographic, climate, soil, and water features; 2) Plant Communities – plant species, vegetation states, and ecological dynamics; 3) Site Interpretations – management alternatives for the site and its related resources; 4) Supporting Information – relevant literature, information and data sources.

**Ecosystem:** A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

**Emergency Use:** These are activities occurring on the public lands outside the scope of normal resource use and operations, and which require immediate attention. Emergency use activities are typically driven by imminent concerns for human health and safety, or protection of property (e.g., wildfire suppression, HAZMAT response, disease outbreaks, etc.). Emergency use is typically exempted from other land use restrictions, with the exercise of reasonable and prudent care.

**Endangered Species:** Any plant or animal species that is in danger of extinction throughout all or a significant portion of its range, as defined by the U.S. Fish and Wildlife Service under the authority of the Endangered Species Act of 1973.

**Enhance:** The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the plant community to meet Greater Sage-Grouse objectives.

**Environmental Assessment (EA):** Concise, analytical documents, authorized by the National Environmental Policy Act (NEPA) of 1969, that are prepared with public participation to determine whether an Environmental Impact Statement (EIS) is needed for a particular project or action. If an EA determines an EIS is not needed, the EA becomes the document allowing agency compliance with NEPA requirements.

**Environmental Impact Statement (EIS):** A document required by the National Environmental Policy Act (NEPA) for certain actions "significantly affecting the quality of the human environment." An EIS is a tool for decision making. It describes the positive and negative environmental effects of a proposed action, and it usually also lists one or more alternative actions that may be chosen instead of the action described in the EIS.

**Ephemeral Channels/Streams:** A defined channel formed in response to ephemeral surface flow conditions. Defined channels typically can be identified by an abrupt bank along a water flow path with evidence of scouring, sorting, and/or vegetation removal during flood events. These channels generally form in concave erosional features such as gullies, ravines, swales, etc. These channels are above the water table at all times, and lose water to the groundwater system.

**Ephemeral Surface Waters:** Streams, lakes, or other surface water bodies that have open water only during or immediately after periods of rainfall or snowmelt. These water bodies are above the water table at all times, and lose water to the groundwater system.

**Erosion:** The wearing away of the land surface by running water, wind, ice, or other geological agents.

**Essential Nexus:** The degree of the actions demanded by the permit conditions bears the required relationship to the projected impact of the proposed development.

**Evaporation Pond:** An industrial containment area designed to allow briny water to evaporate by using solar energy and wind.

**Exception:** A one-time exemption for a particular site within the leasehold; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the leasehold. An exception is a limited type of waiver (H-1624-1 – Planning for Fluid Mineral Resources).

**Exclusion Areas:** An area on the public lands where a certain activity(ies) is prohibited to insure protection of other resource values present on the site. The term is frequently used in reference to lands/realty actions and proposals (e.g., rights-of-way, etc.), but is not unique to lands and realty program activities. This restriction is functionally analogous to the phrase "no surface occupancy" used by the oil and gas program,

and is applied as an absolute condition to those affected activities. The less restrictive analogous term is avoidance area.

**Exotic Species:** Species which occur in a given place, area, or region as the result of direct or indirect, deliberate or accidental introduction of the species by humans, and for which introduction has permitted the species to cross a natural barrier to dispersal.

**Exploration:** Active drilling and geophysical operations to:

a. Determine the presence of the mineral resource; or

b. Determine the extent of the reservoir or mineral deposit.

**Extensive Recreation Management Area (ERMA):** BLM administrative units where recreation management is only one of several management objectives and where limited commitment of resources is required to provide extensive and unstructured types of recreation activities.

**Feasible:** Something is capable of being accomplished.

**Federal Lands:** As used in this document, lands owned by the United States, without reference to how the lands were acquired or what federal agency administers the lands. The term includes mineral estates or coal estates underlying private surface but excludes lands held by the United States in trust for Indians, Aleuts, or Eskimos. (See also Public Land.)

**Federal Land Policy and Management Act of 1976 (FLPMA) as amended:** Public Law 94-579. October 21, 1976, often referred to as the BLM' s "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy, and basic management guidance.

**Federal Register (FR):** A daily publication that reports Presidential and federal agency documents.

**Fire Management:** All activities for the management of wildland fires to meet land management objectives. Fire management includes the entire scope of activities from planning, prevention, fuels or vegetation modification, prescribed fire, hazard mitigation, fire response, rehabilitation, monitoring and evaluation.

**Fire Management Plan (FMP):** A compilation of goals, objectives, and requirements from the land/resource management planning process necessary to implement wildland fire management decisions.

**Fire Regime Condition Class:** A measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities. The fire regime condition classes defined as follows:

- **Condition Class 1:** Fire regimes are within a historical range, and the risk of losing key ecosystem components from fire is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range.
- **Condition Class 2:** Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components from fire is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, frequency, intensity, severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range.

- **Condition Class 3:** Fire regimes have been significantly altered from their historical ranges. The risk of losing key ecosystem components from fire is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, frequency, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range.

**Fire Suppression:** All work and activities connected with control and fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

**Fishery:** Habitat that supports the propagation and maintenance of fish.

**Flight Distance (Displacement Distance):** That to which a person can approach a wild animal without causing it to flee.

**Floodplain:** The relatively flat area or lowlands adjoining river channel constructed by the river in the present climate and overflowed at times of high discharge.

**Flow Connected Surface Feature:** A surface waterbody, including, but not limited to, a river, stream, lake, or pond, whose water is hydrologically connected to surface or groundwater.

**Fluid Minerals:** Oil, gas, coalbed natural gas, and geothermal resources.

**Forage:** All browse and herbaceous foods available to animals that may be grazed or harvested for feeding.

**Forage Reserve:** A determination for an allotment, or a portion of an allotment, on which there is no current term permit obligation for some or all of the estimated livestock grazing capacity and where it has been determined to use the available forage for management flexibility when there is a loss of forage availability on other allotments because of factors such as drought, hail, or fire (either prescribed or wild).

**Forest Management:** The practical application of scientific, economic, and social principals to the administration and working of a forest for specified objectives.

**Forest Resource:** A community of one or more forest tree species in varying stages of ecological succession that constitutes the primary dominant life form by which certain understory plants and forest dwelling animals are associated, and in whole or part, dependent.

**Formation Fracturing:** See Hydraulic Fracturing.

**Fossil:** Any remains, trace, or imprint of a plant or animal that has been preserved in the Earth's crust since some past geologic or prehistoric time (AGI Glossary of Geology).

**Frac:** See Hydraulic Fracturing.

**Fuelwood:** Wood that is round, split, or sawn and/or otherwise generally refuse material cut into short lengths or chipped for burning.

**Full Suppression:** All work and activities connected with control and fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

**Functional Habitat:** Habitat that is capable of serving the ecological requirements of a species, which includes providing for the seasonal and life cycle needs on a sustained basis.

**Furbearing Animal:** Badger, beaver, bobcat, marten, mink, muskrat, and weasel.

**Game Birds:** Grouse, partridge, pheasant, ptarmigan, quail, wild turkey, and migratory game birds.

**Geophysical Operation:** Prospecting for minerals or mineral fuels by measuring the various physical properties of the rocks and interpreting the results in terms of geologic features or the economic deposits sought. Physical measurements are taken at the surface, concerning the differences in the density, electrical resistance, or magnetic properties of the rocks. There are four main methods employed in geophysical prospecting: gravitational, magnetic, electrical, and seismic, with several modifications of each.

**General Habitat Management Areas:** Occupied (seasonal or year-round) habitat outside of priority habitat. These areas have been identified by the BLM in coordination with respective state wildlife agencies.

**Goal:** A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established time frames for achievement.

**Grazing Preference:** Grazing preference means a superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee (43 CFR 4100.0-5).

**Grazing Relinquishment:** A grazing "relinquishment" is the voluntary and permanent surrender by an existing permittee or lessee, (with concurrence of any base property lienholder(s)), of their priority for a livestock forage allocation on public land (their preference) as well as their permission to use this forage (their grazing permit or lease), in whole or in part.

**Grazing System:** Scheduled grazing use and non-use of an allotment to reach identified goals or objectives by improving the quality and quantity of vegetation. Include, but are not limited to, developing pastures, utilization levels, grazing rotations, timing and duration of use periods, and necessary range improvements.

**Guidelines:** Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory. Guidelines for grazing administration must conform to 43 CFR 4180.2 (H-1601-1, Land Use Planning Handbook).

**Habitat:** An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle. In wildlife management, the major components of habitat are food, water, cover and the adequate juxtaposition of the three.

**Habitat Management Plan (HMP):** An officially approved activity plan for a specific geographic area of public land. An HMP identifies wildlife habitat and related objectives, defines the sequence of actions to be implemented to achieve the objectives, and outlines procedures for evaluating accomplishments.

**Habitat Type:** Place where an animal or plant normally lives, often characterized by a dominant plant form or physical characteristic.

**Hazard Reduction:** Any treatment of living and dead fuels that reduces the potential spread or consequences of fire.

**Hazard Fuels:** A fuel complex defined by kind, arrangement, volume, condition, and location that presents a threat of ignition and resistance to control.

**Hazardous Materials:** 1) any substance, pollutant, or contaminant (regardless of quantity) listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act

(CERCLA) of 1980, as amended, 42 USC 9601 et seq., and the regulations issued under CERCLA; 2) any hazardous waste as defined in the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, and 3) any nuclear or nuclear byproduct as defined by the Atomic Energy Act of 1954, as amended, 42 USC 2011 et seq.

**Healthy Stream Channel Form and Function:** Stream channel function includes both physical and biological attributes, and applies to intermittent and perennial water bodies. Function includes water transport, sediment transport, and transport of wood and chemicals (including nutrients) delivered to streams. Physical attributes of streams include landscape setting, cross-section form, longitudinal gradient, particle size distribution, and response/adjustment to disturbance. Biological attributes of streams include nutrient dynamics, biological productivity, and aquatic habitat characteristics.

**Herbaceous:** Pertaining to or characteristic of an herb (fleshy-stem plant) as distinguished from the woody tissue of shrubs and trees.

**Herd Area:** The geographic area identified as having been used by a herd of wild horses or burros as its habitat in 1971.

**Herd Management Area (HMA):** Areas established by the Authorized Officer for the maintenance of wild horse and burro herds. Herd management areas are established in consideration of the appropriate management level for the herd, the habitat requirements of the animals, the relationships with other uses of the public and adjacent private lands, and the constraints contained in 43 CFR 4710.4.

**Hibernaculum:** A shelter occupied during the winter by a dormant animal.

**High-voltage Transmission Line:** An electrical power line that is 100 kilovolts or larger.

**Historic:** Referring to the time after written records or after the Europeans first came and wrote about the people and events in America.

**Historic District:** A district possesses a significant concentration, linkage or continuity of sites, buildings, structures, united historically or aesthetically by plan or physical development.

**Historic Property:** Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on, the National Register of Historic Places, including artifacts, records, and material remans related to such a property or resource.

**Historical Raptor Nests:** Any raptor nest or site that has been destroyed but was historically recorded and documented. Temporal and spatial stipulations will not apply.

**Home Range:** The area in which an animal travels in the scope of natural activities.

**Holder:** An individual or entity that holds a valid special use authorization.

**Hydraulic Fracturing:** The breaking or parting of reservoir rock through the use of injected fluids. Hydraulic fracturing is a method of stimulating production or injection at a specific depth in a formation of low permeability by inducing fractures and fissures in the formation by applying high fluid pressure to its face. Fluids (liquids, gases, foams, and emulsions) are injected into reservoir rock at pressures that exceed the strength of the rock and overcome internal stresses of the rock. The fluid enters the formation and parts or fractures it. Sand grains, aluminum pellets, glass beads, or similar materials are carried in suspension by the fluid into the fractures. These are called propping agents or proppants. When the pressure is released at the surface, the fracturing fluid returns to the wellbore as the fractures partially close on the proppants, leaving paths with increased permeability for fluid flow.

**Identified 100-Year Flood Plains:** Those areas delineated by the Federal Emergency Management Agency as having a 1% probability of being inundated in any given year.

**Impacts (or Effects):** Consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative.

**Implementation Plan:** A site-specific plan written to implement decisions made in a land use plan. An implementation plan usually selects and applies best management practices to meet land use plan objectives. Implementation plans are synonymous with "activity" plans. Examples of implementation plans include interdisciplinary management plans, habitat management plans, and allotment management plans.

**Important Habitats:** Areas of especially high value for a diversity of wildlife or areas that provide certain habitat elements essential to the existence of certain groups of wildlife.

**Indicators:** Factors that describe resource condition and change and can help the BLM determine trends over time.

**Indicator Species:** Species that indicate the presence of certain environmental conditions, seral stages, or previous treatment. One or more plant species selected to indicate a certain level of grazing use (See Management Indicator Species).

**Indirect Impacts (Effects):** Indirect impacts are caused by the action and occur later in time or further removed in distance.

**Infiltration Pond:** An industrial containment area designed to allow groundwater recharge and the downward entry of water into the soil or other material. Infiltration impoundments constructed in-channel may allow for overflow under given storm events.

**Initial Attack:** An aggressive action to put the fire out by the first resources to arrive, consistent with firefighter and public safety and values to be protected.

**In-kind Mitigation:** The replacement or substitution of resources or values that are of the same type and kind as those impacted.

**Integrated Ranch Planning:** A method for ranch planning that takes a holistic look at all elements of the ranching operations, including strategic and tactical planning, rather than approaching planning as several separate enterprises.

**Intensive Management:** Use of proper distance restrictions, seasonal or timing restrictions, rehabilitation standards, and the application of the Wyoming Mitigation Guidelines for Surface-disturbing and Disruptive Activities to adequately protect the resources for which the intensive management is applied. Intensive management actions would be applied with the goal of maintaining or enhancing sensitive resources (plant communities, wildlife habitats, archaeological or paleontological resources, etc.).

**Interdisciplinary Team:** A group of individuals with different training, representing the physical sciences, social sciences, and environmental design arts, assembled to solve a problem or perform a task. The members of the team proceed to a solution with frequent interaction so that each discipline may provide insights on any stage of the problem, and disciplines may combine to provide new solutions. The number and disciplines of the members preparing the plan vary with circumstances. A member may represent one or more discipline or program interest.

**Interior Board of Land Appeals (IBLA):** The Department of the Interior, Office of Hearings and Appeals, board that acts for the Secretary of the Interior in responding to appeals of decisions on the use and disposition of public lands and resources. Because the IBLA acts for and on behalf of the Secretary of the Interior, its decisions usually represent the Department's final decision but are subject to the courts.

**Intermittent Surface Waters:** Streams, lakes, or other surface water bodies that generally flow or contain during a portion of the year when they receive water from springs or during runoff from rain or snow. In the case of streams, this term can also refer to spatially noncontinuous flow because of groundwater interaction (i.e., portions of the stream are generally dry and portions are generally wet in most years).

**Invasive Species (Invasive Plant Species, Invasives):** A non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The species must cause, or be likely to cause, harm, and be exotic to the ecosystem it has infested before considered invasive.

**Irreversible and Irretrievable Commitment of Resources:** An irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time. An irreversible commitment of a resource is one that cannot be reversed. NEPA §102(2)C requires a discussion of any irreversible or irretrievable commitments of resources that would be involved in a proposal should it be implemented.

**Isolated Parcel:** An individual parcel of land that may share a corner, but does not have a common border with another parcel.

**Jurisdiction:** The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority but not necessarily ownership.

**Land Locked:** This term refers to the situation when any parcel of land (i.e., private, State, or Federal) has no legal access without crossing another ownership due to the existing land ownership pattern.

**Lands with Wilderness Characteristics:** Lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in section 2(c) of the Wilderness Act.

**Landscape:** A distinct association of land types that exhibit a unique combination of local climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human influences. Landscapes are generally of a size that the eye can comprehend in a single view.

**Land Tenure Adjustment:** This term refers to a change in land ownership patterns, or legal status, to improve their administrative manageability and/or their usefulness to the public.

**Land Use Plan:** A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land-use-plan-level decisions developed through the planning process, regardless of the scale at which the decisions were developed.

**Large Scale Anthropogenic Disturbances:** Features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, agricultural conversion, homes, and mines.

**Late Brood Rearing Area:** Habitat includes mesic sagebrush and mixed shrub communities, wet meadows, and riparian habitats as well as some agricultural lands (e.g., alfalfa fields).

**Leasable Minerals:** Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920, as amended. These include energy-related mineral resources such as oil, natural gas, coal, and

geothermal, and some non-energy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

**Lease:** Section 302 of the Federal Land Policy and Management Act of 1976 provides the BLM's authority to issue leases for the use, occupancy, and development of public lands. Authorizations are issued for purposes such as a commercial filming, advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, native or introduced species harvesting, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and nonirrigation facilities. The regulations establishing procedures for processing these leases and permits are found in 43 CFR 2920.

**Lease Notice:** Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders.

**Lease Stipulations (Oil and Gas):** Additional specific terms and conditions that modify the lease rights or change the manner in which an operation may be conducted.

**Lentic:** Wetland or riparian areas with standing water habitat such as lakes, ponds, seeps, bogs, and meadows.

**Level of Acceptable Change:** Federally established threshold of acceptable change to maintain conditions of acid-sensitive lakes.

**Level of Concern:** Federally established atmospheric deposition threshold concentration amount related to undesirable effects on the ecosystem.

**Light Grazing:** Light grazing is related to forage utilization, and can be expressed as livestock grazing that consumes no more than about 30% of the current year's growth of forage plants. Light refers to the effect on the landscape, which is measured through utilization monitoring. You may reduce the number of animals by 30% and still not achieve "light grazing", if those animals that remain consume more than 30% of the current year's forage growth.

**Limited Designation (OHV):** An area restricted at certain times, in certain areas, or to certain vehicular use. These restrictions may be of any type but can generally be accommodated within the following categories: Number of vehicles; type of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.

**Limited Reclamation Potential:** Limited Reclamation Potential soils are as defined by the Wyoming Reclamation Policy. Site- specific evaluations will be conducted using current site conditions and up-to-date databases such as the NRCS Soil Web Survey and other information as needed to define soils as having Limited Reclamation Potential.

**Livestock Conversion:** A discretionary action changing permitted use from one kind or class of animal to another.

**Locatable Minerals:** Mineral disposable under the General Mining Act of 1872, as amended, that were not excepted in later legislation. They include hard rock, placer, industrial minerals, and uncommon varieties of rock found on public domain lands (see definition at 43 CFR 3830.10 and examples of minerals that are to be located by lode or placer claim at 43 CFR 3832.20).

**Lotic:** Riparian areas with running water habitat such as rivers, streams, creeks, and springs.

**Lynx Analysis Unit (LAU):** An LAU is a project analysis unit upon which direct, indirect, and cumulative effects analysis are performed. LAU boundaries should remain constant to facilitate planning and allow effective monitoring of habitat changes over time. An LAU is an area of at least the size used by an individual lynx, from about 25 to 50 square miles.

**Major Pipeline:** A pipeline that is 24 inches or more in outside-pipe diameter (Mineral Leasing Act of 1920 30 USC § 181; 36 CFR 251.54(f)(1)).

**Management Area:** An area identified by the BLM for the management of a specific resource or resources such as a geographic or watershed area; where activities are managed to ensure the combination of resource values are adequately maintained.

**Management Decision:** A decision made by the BLM to manage public lands. Management decisions include both land use plan decisions and implementation decisions.

**Management Indicator Species:** A plant or animal species selected because their status is believed to (1) be indicative of the status of a larger functional group of species, (2) be reflective of the status of a key habitat type, or (3) act as an early warning of an anticipated stressor to ecological integrity. The key characteristic of a MIS species is that its status and trend provide insights to the integrity of the larger ecological system to which it belongs.

**Master Development Plans:** A set of information common to multiple planned wells, including drilling plans, Surface Use Plans of Operations, and plans for future production.

**Mineral:** Any naturally formed inorganic material, solid or fluid inorganic substance that can be extracted from the earth, any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground. Under federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to the Materials Act of 1947).

**Mineral Entry:** The filing of a claim on public land to obtain the right to any minerals it may contain.

**Mineral Estate:** The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

**Mineral Leasing Act of 1920, as amended (MLA) 30 USC 181, 43 CFR 3000 and 2880:** An Act to promote the mining of coal, phosphate, oil, oil shale, gas and sodium on the public domain.

**Mineral Location:** The act of marking out and establishing rights by a claimant for mining purposes in accordance with the Mining Law of 1872, as amended.

**Mineral Materials:** Materials such as common varieties of sand, stone, gravel, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended; pursuant to the mineral material regulations at 43 CFR Part 3600 or 36 CFR 228 Subpart C.

**Minimization Mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation (40 CFR 1508.20 (b)).

**Mining Claim:** A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. There are four categories of mining claims: lode, placer, millsite, and tunnel site.

**Minor Pipeline:** A pipeline less than 24 inches in outside diameter which doesn't require Congressional Notification.

**Mitigation:** Includes specific means, measures or practices that could reduce, avoid, or eliminate adverse impacts. Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action, minimizing the impact by limiting the degree of magnitude of the action and its implementation, rectifying the impact by repairing, rehabilitation, or restoring the affected environment, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and compensating for the impact by replacing or providing substitute resources or environments.

**Modification (Oil and Gas Leasing):** A change to the provisions of a lease stipulation, either temporarily or for the term of the lease. May maintain, increase, or decrease the level of environmental protection. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold to which the restrictive criteria are applied (H-1624-1 – Planning for Fluid Mineral Resources).

**Monitoring:** The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives. This process must be conducted over time in order to determine whether or not management objectives are being met. Monitoring also includes observations to evaluate baseline (i.e., pre-activity) conditions, evaluation of whether activities met desired goals and permit requirements (implementation monitoring), and evaluation of how well mitigation measures protected resource conditions (effectiveness monitoring).

**Moraine:** An accumulation of boulders, stones, and other earth debris carried and deposited by a glacier.

**Multiple Use:** Management of the public lands and their various resource values so that they are used in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output, as provided in the Multiple Use Sustained Yield Act.

**National Ambient Air Quality Standards (NAAQS):** The allowable concentrations of air pollutants in the ambient (public outdoor) air. National ambient air quality standards are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health) and secondary standards (allowing an adequate margin of safety to protect the public welfare). Welfare is defined as including, but not limited to, effects on soils, water, crops, vegetation, human-made materials, animals, wildlife, weather, visibility, climate, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.

**National Environmental Policy Act of 1969 (NEPA):** The National Environmental Policy Act (NEPA) [42 USC 4321 et seq.] was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

**National Historic Preservation Act (NHPA):** The National Historic Preservation Act (Public law 113-287; 54 USC 300101 et seq.) is legislation intended to preserve historical and archaeological sites in the

United States of America. The act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices.

**National Historic Trail:** A congressionally designated trail that is an extended, long-distance trail, not necessarily managed as continuous, that follows as closely as possible and practicable the original trails or routes of travel of national historic significance. The purpose of a National Historic Trail is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. A National Historic Trail is managed in a manner to protect the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail.

**National Register of Historic Places (NRHP):** The official list of United States government's historic districts, sites, buildings, structures, and objects deemed worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Register of Historic Places is a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources.

**National Scenic Trail:** A congressionally designated trail that is a continuous and uninterrupted extended long-distance trail so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant resources, qualities, values, and associated settings and the primary use or uses of the areas through which such trails may pass. National Scenic Trails may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms that exhibit significant characteristics of the physiographic regions of the Nation.

**National Wild and Scenic Rivers (WSR):** The system of congressionally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition.

**Native Plant Species:** Species that were found here before European settlement, and consequently are in balance with these ecosystems because they have well developed parasites, predators, and pollinators.

**Necessary Tasks:** Administrative duties or work requiring the use of motor vehicles, such as retrieving big game kills, repairing range improvements, management of livestock, geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), or performing mining claim functions resulting in less than 5 acres of surface disturbance as described in 43 CFR 3809. Mining claimants may exercise their rights to cause more than 5 acres disturbance as part of exploring for or mining locatable minerals 36 CFR 3809.5.

**Net Conservation Gain:** The actual benefit or gain above baseline conditions.

**No Surface Occupancy (NSO):** Land use allocation or approval restriction used when surface disturbance cannot be mitigated and must be prohibited. The land use decision or stipulation identifies the NSO area and allowed or excepted uses in the area. NSO stipulations are used on oil and gas leases where drilling and/or operations impacts cannot be adequately mitigated but fluid mineral resources may be recovered by directional drilling. Exclusion Area designations in the Realty Program are NSO land use decisions. This stipulation can be used to prohibit other surface disturbing or disruptive activities such as commercial recreational activities, mining, and timber harvest (see also Stipulation Category) (IBWY-2007-029).

**Noncommercial Forestland:** Land that is not capable of yielding at least 20 cubic feet of wood per acre per year of commercial species; also, land that is capable of producing only noncommercial tree species.

**Non-Point Source Pollution:** A pollution source that is not specific in location. The source of the discharge is dispersed, not well defined, or constant.

**[3809] Notice-level Mining Activities:** A notice is required for exploration activity greater than casual use that will cause surface disturbance of 5 acres or less on BLM-administered lands and split-estate. Mining activity, regardless of acreage disturbed, may not be conducted under a notice filed under the current regulations. For activities under BLM jurisdiction, the content of the notice will determine whether the operation qualifies as a notice-level operation and will not cause undue and unnecessary degradation (43 CFR 3809.21).

**Noxious Weeds:** A plant species designated by federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the United States.

**Objective:** A description of a desired outcome for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement (H-1601-1, Land Use Planning Handbook).

**Off-Highway Vehicle (OHV):** Any motorized tracked or wheeled vehicle designed for cross-country travel over any type of natural terrain. Exclusions (from 43 CFR 8340.0-5(a) (1-5)) are non-amphibious registered motorboats; any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; any vehicle whose use is expressly authorized by the authorizing officer or otherwise officially approved; vehicles in official use; and any combat support vehicle in times of national defense emergencies. The term Off-Road Vehicle (ORV) is used synonymously with OHV.

**Off-Highway Vehicle Management Designations:** An area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set for within 43 CFR 8341 – 8342 The off-road vehicle (ORV) designation definitions have been developed in cooperation with representatives of the U.S. Forest Service, U.S. Park Service, and BLM State and District personnel. It is recognized that there are differences between OHVs and over-the-snow vehicles in terms of use and impact. Therefore, travel by over-the-snow vehicles is permitted off existing routes and in all open or limited areas (unless otherwise specifically limited or closed to over-the-snow vehicles) if they are operated in a responsible manner without damaging the vegetation or harming wildlife. Designations include—

**OHV Closed Route:** OHV Travel is prohibited on the route. Access by means other than OHVs, such as by motorized vehicles that fall outside of the definition of an OHV or by mechanized or non- mechanized means, is permitted. The BLM designates routes as closed to OHV if necessary to protect resources, promote visitor safety, reduce use conflicts, or meet a specific resource goal or objective.

**OHV Open Route:** OHV travel us permitted where there are no special restrictions or no compelling reassure protection needs, user conflicts, or public safety issues to warrant limiting the timing or season of use, the type of OHV or the type of OHV user.

**OHV Limited Route:** OHV Travel on routes, roads, trails or other vehicle ways is subject to restrictions to meet specific resources management objectives. Examples of restrictions include numbers or types of vehicles; time or season of use; permitted or licensed use only; or other restrictions necessary to meet resource management objectives, including certain competitive or intensive uses that have special limitations.

**Offsite Mitigation:** Compensating for resource impacts by replacing or providing substitute resources or habitat at a different location than the project area.

**Oil and Gas Lease:** A legal contract granting the right to explore for, develop and produce oil and gas resources for a specific period of time under certain agreed-upon terms and conditions.

**Open Designation (OHV):** An area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set for in 43 CFR 8341 – 8342.

**Out-of-kind Mitigation:** The replacement or substitution of resources or values that are not the same type and kind as those impacted, but are related or similar.

**Overstory:** The portion of vegetation in a forest that forms the uppermost foliage layer.

**Paleontological Resources:** Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest, and that provide information about the history of life on earth. The term does not include: (1) Any materials associated with an archaeological resource (as defined in section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 480bb(1)); or (2) Any cultural item (as defined in section two of the Native American Graves Protection and Repatriation Act [25 USC 3001]). The term does not apply to petrified wood or fossiliferous units.

**Particulate Matter (PM):** Fine liquid or solid particles suspended in the air and consisting of dust, smoke, mist, fumes, and compounds containing sulfur, nitrogen, and metals.

**Partners:** an association of individuals or groups with like interests due to the scope or location of a project on federal lands or in regard to a federal permitting process.

**Parturition Area:** Documented birthing areas commonly used by females. They include calving areas, fawning areas, and lambing grounds. These areas may be used as nurseries by some big game species.

**Passerine Birds:** Birds of the order Passeriformes, which includes perching birds and songbirds such as blackbirds, jays, finches, warblers, and sparrows. More than half of all birds belong to this order.

**Paved Road:** This road provides access between major points and includes major and minor highways.

**Perennial Surface Waters:** Streams, lakes, or other surface water bodies that flow or contain water year-round in most years. These water bodies are primarily fed by groundwater during the low-flow season. These systems would generally only dry up during drought conditions. In the case of streams, this term can refer to the persistence of surface waters along a channel (i.e., few reaches where the infiltration into the stream aquifer exceeds the flow).

**Permittee:** A person or company authorized to use or occupy BLM-administered land.

**Persistent Woodlands:** Long-lived pinyon-juniper woodlands that typically have sparse understories and occur on poor substrates in the assessment area.

**Personal Income:** The sum of wage and salary disbursements, other labor income, proprietors' income, rental income of persons, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

**pH:** A measure of acidity or hydrogen ion activity. Neutral is pH 7.0. All values below 7.0 are acidic, and all values above 7.0 are alkaline.

**Plan:** A document that contains a set of comprehensive, long-range decisions concerning the use and management of BLM-administered resources in a specific geographic area.

**Plan of Operations:** A [3809] Plan of Operations is required for all locatable mining exploration activity greater than 5 acres or surface disturbance greater than casual use on certain special category lands. Special category lands are described under 43 CFR 3809.11(c) and include such lands as designated Areas of

Critical Environmental Concern, lands within the National Wilderness Preservation System, and areas closed to off-road vehicles, among others. In addition, a plan of operations is required for activity greater than casual use on lands patented under the Stock Raising Homestead Act with Federal minerals where the operator does not have the written consent of the surface owner (43 CFR 3814 & 3809.31(d)). The Plan of operations needs to be filed in the BLM field office with jurisdiction over the land involved. The Plan of Operations does not need to be on a particular form but must address the information required by 43 CFR 3809.401(b).

**Planning Area:** A geographical area for which land use and resource management plans are developed and maintained.

**Planning Criteria:** The standards, rules, and other factors developed by managers and interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamline and simplify the resource management planning actions.

**Planning Base:** Law, regulation, policy, land use plan decisions (e.g., RMPs, Resource Management Plan Amendments, and Management Framework Plan Amendments), NEPA documents (e.g., EISs Administrative Determinations, EAs, and Categorical Exclusion Reviews), and supporting data (e.g., automated databases, research, and evaluations).

**Point Source Pollution:** Any discernable, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged to a receiving water body, wetland, etc.

**Policy:** This is a statement of guiding principles, or procedures, designed and intended to influence planning decisions, operating actions, or other affairs of the BLM. Policies are established interpretations of legislation, executive orders, regulations, or other presidential, secretarial, or management directives.

**Population:** A group of organisms, all the same species, which occupies a particular area. The term is used to refer to the number of individuals of a species within an ecosystem or of any group of like individuals.

**Potential Wild and Scenic River:** A body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes that possess free-flowing condition and outstandingly remarkable values and therefore may have potential for addition to the National System.

**Preference:** See Grazing Preference.

**Prehistoric:** Information about past events prior to the recording of events in writing. The period of prehistory differs around the world depending upon when written records became common in a region.

**Prescribed Fire:** A wildland fire originating from a planned ignition in accordance with applicable laws, policies, and regulations to meet specific objectives.

**Prescribed Fire Plan (Burn Plan):** A plan required for each fire application ignited by management. Plans are documents prepared by qualified personnel, approved by the agency administrator, and include criteria for the conditions under which the fire will be conducted (a prescription). Plan content varies among the agencies.

**Prescription:** In the context of wildland fire, a prescription is measurable criteria that define conditions under which a prescribed fire may be ignited. Prescriptions may also be used to guide selection of management responses to wildfire to define conditions under which management actions are most likely to achieve incident management objectives. Prescription criteria typically describe environmental conditions

such as temperature, humidity and fuel moisture, but may also include safety, economic, public health, geographic, administrative, social, or legal considerations.

**Primitive Road:** A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards (H-8342-1, Travel and Transportation Management Handbook).

**Primitive Route:** A transportation linear feature located within a WSA or lands with wilderness characteristics designated for protection by a land use plan and not meeting the wilderness inventory road definition.

**Produced Water:** Groundwater produced in conjunction with the extraction of minerals.

**Proper Functioning Condition (PFC):** A riparian-wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flow, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary to fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation. There are two categories of wetlands—lentic areas, which are created by a stable water table such as playas, fens, around lakes, marshes etc., and lotic areas, which are in riverine environments.

**Proposed Species:** Species that have been officially proposed for listing as threatened or endangered by the Secretary of the Interior as determined by the US Fish and Wildlife Service. A proposed rule has been published in the Federal Register.

**Public Domain:** The term applied to any or all of those areas of land ceded to the Federal Government by the Original States and to such other lands as were later acquired by treaty, purchase, or cession, and are disposed of only under the authority of Congress.

**Public Lands:** As used in this document, any land and interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership.

**Range Improvement:** The term range improvement means any activity, structure or program on or relating to rangelands which is designed to improve production of forage, change vegetative composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock and wildlife. The term includes, but is not limited to, structures, treatment projects, and use of mechanical means to accomplish the desired results.

**Range Trend:** The direction of change in range condition over time, either toward or away from desired management objectives.

**Rangeland:** Land on which the indigenous (climax or natural potential) vegetation is predominantly grasses, grass-like plants, forbs, or shrubs and is managed as a natural ecosystem. If plants are introduced, they are managed similarly. Rangelands include natural grasslands, savannas, shrublands, many deserts, tundras, alpine communities, marshes and meadows.

**Raptor:** Bird of prey with sharp talons and strongly curved beaks such as hawks, owls, vultures, ravens, and eagles.

**Raptor Concentration Area (RCA):** A localized area where raptors congregate that may provide thermal protection, increased forage availability, and a minimal level of stress-inducing disturbances.

**Reasonably Foreseeable Development (RFD):** A projection of likely exploration, development, and production of oil and gas within a study area based on existing and credible geologic data, technology, economics, and activity trends.

**Reclamation:** The suite of actions taken within an area affected by human disturbance, the outcome of which is intended to change the condition of the disturbed area to meet pre-determined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

**Reclamation Plans:** Plans that guide the suite of actions taken within an area affected by human disturbance, the outcome of which is intended to change the condition of the disturbed area to meet pre-determined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function, etc.).

**Recreation Opportunity Spectrum (ROS):** A planning process that provides a framework for defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for experiences are arranged along a continuum or spectrum of six classes: primitive, back country, middle country, front country, rural, and urban. The resulting analysis defines specific geographic areas on the ground, each of which encompasses one of the six classes.

**Reference State:** The reference state is the state where the functional capacities represented by soil/site stability, hydrologic function, and biotic integrity are performing at an optimum level under the natural disturbance regime. This state usually includes, but is not limited to, what is often referred to as the potential natural plant community.

**Reserve Common Allotment:** An area which is designated in the land use plan as available for livestock grazing but reserved as an area available for use as an alternative to grazing in another allotment in order to facilitate rangeland restoration treatments and recovery from natural disturbances such as drought or wildfire. The reserve common allotment would provide needed flexibility that would help the agency apply temporary rest from grazing where vegetation treatments and/or management would be most effective.

**Residual Impacts:** Impacts from an authorized land use or implementation-level decision that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Restoration:** Implementation of a set of actions that promotes plant community diversity and structure that allows plant communities to be more resilient to disturbance and invasive species over the long term. The long-term goal is to create functional, high quality habitat that is occupied by Greater Sage-Grouse. Short-term goal may be to restore the landform, soils and hydrology and increase the percentage of preferred vegetation, seeding of desired species, or treatment of undesired species.

**Resource Damage:** Damage to any natural or cultural resources that results in impacts such as erosion, water pollution, degradation of vegetation, loss of archaeological resources, or the spread of weeds.

**Resource Management Plan (RMP):** A land use plan as described by the Federal Land Policy and Management Act. The resource management plan generally establishes in a written document: (1) Land areas for limited, restricted or exclusive use; designation, including ACEC designation; and transfer from Bureau of Land Management Administration; (2) Allowable resource uses (either singly or in combination) and related levels of production or use to be maintained; (3) Resource condition goals and objectives to be attained; (4) Program constraints and general management practices needed to achieve the above items; (5) Need for an area to be covered by more detailed and specific plans; (6) Support action, including such measures as resource protection, access development, realty action, cadastral survey, etc., as necessary to

achieve the above; (7) General implementation sequences, where carrying out a planned action is dependent upon prior accomplishment of another planned action; and (8) Intervals and standards for monitoring and evaluating the plan to determine the effectiveness of the plan and the need for amendment or revision. It is not a final implementation decision on actions which require further specific plans, process steps, or decisions under specific provisions of law and regulations

**Restriction/Restricted Use:** A limitation or constraint on public land uses and operations. Restrictions can be of any kind, but most commonly apply to certain types of vehicle use, temporal and/or spatial constraints, or certain authorizations.

**Right-of-Way Corridor:** A parcel of land (often linear in character) that has been identified through the land use planning process as being a preferred location for existing and future utility rights-of-way and that is suitable to accommodate one or more rights-of-way that are similar, identical, or compatible. Corridors may accommodate multiple pipelines (such as for oil and gas), electricity transmission lines, and related infrastructure, such as access and maintenance roads, compressors, pumping stations, and other structures (see Corridor definition).

**Right-of-Way Grant:** Authorizes public lands to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under, or through such land. A ROW grant is an authorization of use for either site or linear projects (e.g. communication sites, power lines, pipelines and roads) on public lands. A grant authorizes rights and privileges for a specific use of the land for a specific period of time (43 CFR 2800, 2880).

**Riparian:** Referring to or relating to areas adjacent to water or influenced by free water associated with streams or rivers on geologic surfaces occupying the lowest position in the watershed. (See definition for Lentic and Lotic). (See also Wetland/Riparian.)

**Riparian Area:** A form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas (See BLM Manual 1737). Included are ephemeral streams that have vegetation dependent upon free water in the soil. All other ephemeral streams are excluded.

**Riparian Communities:** Communities of vegetation associated with either open water or wetlands. Examples are cottonwood and willow communities, meadows, aspens near water sources, and other trees, grasses, forbs, and shrubs associated with water.

**River Eligibility:** A river or river segment found to meet criteria found in Sections 1(b) and 2(b) of the Wild and Scenic Rivers Act of being free flowing and possessing one or more outstandingly remarkable value.

**Road:** A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use (H-8342-1, Travel and Transportation Management Handbook).

**Road Category Level:** Defines the level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria. There are five maintenance levels:

- **Level 1:** Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period is one year or longer. Basic custodial maintenance is performed.

- **Level 2:** Assigned to roads open for use by high-clearance vehicles. Passenger car traffic is not a consideration.
- **Level 3:** Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.
- **Level 4:** Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.
- **Level 5:** Assigned to roads that provide a high degree of user comfort and convenience. Normally, roads are double-lane and paved or aggregate-surfaced with dust abatement.

**Rough Proportionality:** The required dedication is related both in nature and extent to the proposed development's impact.

**Runoff:** The total stream discharge of water, including both surface and subsurface flow, usually expressed in acre-feet of water yield.

**Salable Minerals:** Minerals that may be disposed of through sales and free use permits under the Materials Act of 1947, as amended. Included are common varieties of sand, stone, gravel, and clay (See also Mineral Materials).

**Sawtimber:** Trees containing at least one eight-foot sawlog and meeting regional specifications for freedom from defect. Softwood trees must be at least eight inches in diameter at breast height (4.5 feet above the ground). (Forest Standards).

**Scenery Management System (SMS):** A planning and management tool used to delineate, define, and integrate scenery resources in land and resource management planning. An SMS inventory is required for every Forest Plan revision."

**Scenic Integrity:** An indicator of an areas visual appearance, either stated as an objective or current condition, related to the characteristic landscape."

**Scenic Integrity (Existing or Objective):** State of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation from the existing landscape character in a national grassland or forest. The scenic integrity levels are:

- **Very High (Unaltered):** Preservation. This level refers to landscapes where the valued landscape character is intact with only minute, if any, deviations. The existing landscape character and sense of place is expressed at the highest possible level.
- **High (Appears Unaltered**): Retention: This level refers to landscapes where the valued landscape character appears intact. Deviations may be present but must repeat the form, line, color, texture and pattern common to the landscape character so completely and at such scale that they are not evident.
- **Moderate (Slightly Altered**): Partial retention: This level refers to landscapes where the valued landscape character appears slightly altered. Noticeable deviation must remain visually subordinate to the landscape character being viewed.

- **Low (Moderately Altered): Modification:** This level refers to landscapes where the valued landscape character appears moderately altered. Deviations begin to dominate the valued landscape character being viewed, but they borrow valued attributes such as size, shape, vegetative type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.

- **Very Low (Heavily Altered): Maximum Modification:** This level refers to landscapes where the valued landscape character appears heavily altered. Deviations may strongly dominate the valued landscape character. They may no borrow from valued attributes such as size, shape, vegetative type changes or architectural styles within or outside of the landscape being viewed. However, deviations must be shaped and blended with the natural terrain (landforms) so that elements such as roads and structures do not dominate the composition.
- **Unacceptably Low:** This level refers to landscapes where the valued landscape character being viewed appears extremely altered. Deviations are extremely altered. Deviations are extremely dominate and borrow little if any form, line, color, texture, pattern, or scale from the landscape character. Landscapes at this level of integrity need rehabilitation.

**Scenic Resource:** Attributes, characteristics, and features of landscapes that provide varying responses from, and varying degrees of benefits to, humans.

**Scenic Quality:** The relative worth of a landscape from a visual perception point of view. Scenic quality is rated as Class A (high), Class B (medium), or Class C (low).

**Scoping:** The process of identifying the range of issues, management concerns, preliminary alternatives, and other components of an environmental impact statement or land-use planning document. It involves both internal and public viewpoints.

**Season of Use:** A livestock grazing permit term and condition identifying the time during which livestock graze a given area to achieve management and resource condition objectives.

**Secondary Paved Road:** This is a paved road, not a highway, with other roads of lesser quality branching from it. It is not usually striped and connects primary roads and major points.

**Secondary Unpaved Road:** This one-lane road is regularly maintained with other roads of lesser quality branching from it. It usually connects primary roads and major points.

**Sensitive Soils:** Land areas that have a moderate to very high hazard for soil compaction, erosion, or displacement. These soils include, but are limited to, red soils, saline soils, sandy soils, highly calcareous, and shallow.

**Sensitive Species:** Those species designated by a State Director, usually in cooperation with the State agency responsible for managing the species and state natural heritage programs. They are those species that: (1) could easily become endangered or extinct in a state; (2) are under status review by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service; (3) are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution; (4) are undergoing significant current or predicted downward trends in population or density such that federal listing, proposal, or candidate status may become necessary; (5) typically have small and widely dispersed populations, or (6) inhabit ecological refugia or other specialized or unique habitats (see Bureau Sensitive Species).

**Seral Stage:** The relatively transitory communities that develop under plant succession generally described as early, mid, and late seral stages. The mix of seral or successional stages on the landscape can be the result of disturbances, topography and soil, climate, uses of the land, management prescriptions, vegetation classification categories, and evaluation procedures.

**Setting:** Setting is one of the seven aspects of integrity examined when evaluating a cultural resource for NRHP eligibility. "Setting is the physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the character of the place in

which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.

Setting often reflects the basic physical conditions under which a property was built and the functions it was intended to serve. In addition, the way in which a property is positioned in its environment can reflect the designer's concept of nature and aesthetic preferences.

**Shrub:** A plant that has persistent woody stems and a relatively low growth habit, and that generally produces several basal shoots instead of a single bole.

**Significant Paleontological Resource:** Any paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils. A significant paleontological resource is considered to be scientifically important because it is a rare or previously unknown species, it is of high quality and well preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on earth, or has identified educational or recreational value. Paleontological resources that may be considered to not have paleontological significance include those that lack provenience or context, lack physical integrity because of decay or natural erosion, or that are overly redundant or are otherwise not useful for research. Vertebrate fossil remains and traces include bone, scales, scutes, skin impressions, burrows, tracks, tail drag marks, vertebrate coprolites (feces), gastroliths (stomach stones), or other physical evidence of past vertebrate life or activities.

**Site-Specific:** Created, designed, or selected for a specific site.

**Size Class:** Tree size recognized by distinct ranges, usually of diameter or height.

**Smoke Management:** The policies and practices implemented by air and natural resource managers directed at minimizing the amount of smoke entering populated areas or impacting sensitive sites, avoiding significant deterioration of air quality and violations of National Ambient Air Quality Standards, and mitigating human-caused visibility impacts in Class I areas.

**Social Cost of Carbon:** The social cost of carbon (SCC) is an estimate of the monetized damages associated with incremental increases in CO2 emissions (typically one metric ton) in a particular year. Federal agencies use the SCC to incorporate the social benefits of reducing CO2 emissions into the analyses of certain regulatory actions.

**Spatial Management:** As used in this document, intensive control of the location and level of surface disturbance that is allowed in a particular area.

**Special Area Designation:** A title conferred on a specified area through the land use planning process, which identifies the area as being in need of special management attention. Examples of special area designations include Special Recreation Management Areas, Areas of Critical Environmental Concern, Special interest area, and Wildlife Habitat Management Areas.

**Special Recreation Management Area (SRMA):** An administrative unit where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, or distinctiveness, especially compared to other areas used for recreation.

**Special Status Species:** Proposed species, listed species, and candidate species under the Endangered Species Act; state-listed species; and BLM State Director-designated sensitive species (see BLM Manual 6840—Special Status Species Policy).

**Split Estate:** This is the circumstance where the surface of a particular parcel of land is owned by a different party than the minerals underlying the surface. Split estates may have any combination of surface/subsurface owners: Federal/State; Federal/private; State/private; or percentage ownerships. When referring to the split estate ownership on a particular parcel of land, it is generally necessary to describe the surface/subsurface ownership pattern of the parcel.

**Standard:** Standards of land health are expressions of levels of physical and biological condition or degree of function required for healthy lands and sustainable uses and define minimum resource conditions that must be achieved and maintained.

**Standard Lease Term:** The terms incorporated into every oil and gas lease. Standard lease terms require compliance with all laws and regulations to ensure protection of other energy, mineral, and surface resources, such as soil, water, vegetation, cultural, and threatened and endangered species. It is important to recognize that the Authorized Officer has the authority to modify the siting and design of facilities, control the rate of development and timing of activities as well as require other mitigation under Sections 2 and 6 of the standard lease terms (BLM Form 3100-11 and 43 CFR 3101.1-2).

**Stakeholders:** Individuals or groups who are involved in or affected by a course of action that is being proposed in a project plan affecting federal lands or a federal permitting process.

**State:** A state is comprised of an integrated soil and vegetation unit having one or more biological communities that occur on a particular ecological site and that are functionally similar with respect to the three attributes (soil/site stability, hydrologic function, and biotic integrity) under natural disturbance regimes.

**State Listed Species:** Species proposed for listing or listed by a state in a category implying but not limited to potential endangerment or extinction. Listing is either by legislation or regulation.

**Stipulation (General):** A term or condition in an agreement, contract, or written authorization.

**Stipulation (Oil and Gas):** A restriction placed on an oil and gas lease or other use authorization to protect other resources (e.g., a seasonal restriction to protect big game in their winter range or in their calving areas) or land uses and is attached to and made a part of the lease. The restriction precludes or restricts activities.

**Stipulation Category:** Land use decisions or authorization requirements intended to mitigate impacts of surface disturbing or disruptive activities. These include RMP decisions, oil and gas lease stipulations, conditions of approval, and terms and conditions. These stipulations may prohibit surface use, allow surface use under certain conditions, or allow surface use during certain times (see also No Surface Occupancy, Controlled Surface Use, and Timing Limitation).

**Stochastic:** Randomly determined event, chance event, a condition determined by predictable processes and a random element.

**Substrate:** The mineral or organic material that forms the bed of a stream; the base upon which an organism lives; the surface on which a plant or animal grows or is attached.

**Succession:** The progressive replacement of plant communities on a site which leads to a potential natural plan community, attaining stability.

**Surface Discharge:** The release of produced water onto the unconfined land surface or into an existing drainage system.

**Surface Disturbance:** Any disturbance that causes the destruction or alteration of vegetation and the disturbance of the soil surface, and that will cause a lasting impact to the affected area.

1. Long-term removal occurs when vegetation is physically removed through activities that replace the vegetation community, such as a road, power line, well pad or active mine. Long-term removal may also result from any activities that cause soil mixing, soil removal, and exposure of the soil to erosive processes.
2. Short-term removal occurs when vegetation is removed in small areas, but is restored to desirable vegetation communities within a few years (<5) of disturbance, such as a successfully reclaimed pipeline, or successfully reclaimed drill hole or pit.
3. Habitat rendered unusable due to numerous anthropogenic disturbances
4. Anthropogenic surface disturbances are surface disturbances meeting the above definitions which result from human activities .

**Surface Disturbing Activities:** An action that alters the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other Public Land values. Examples of surface disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; and conducting several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be either authorized or prohibited (WY IB-2007-029).

**Surface Management:** Operations conducted on BLM administered lands pursuant to the 43 CFR Subpart 3809 regulations. The three levels of operations under these regulations are defined in this glossary include Casual Use, Notice and Plan of Operations. Use and Occupancy of mining claims pursuant to 43 CFR Subpart 3715 that is reasonably incident to Notices and Plans of Operations may also take place pursuant to review and approval by the BLM Authorized Official (AO).

**Surface Occupancy:** Placement or construction on the land surface of semi-permanent or permanent facilities requiring continual service or maintenance. Casual use is not included.

**Surface Use:** These are all the various activities that may be present on the surface or near-surface (e.g., pipelines), of the public lands. It does not refer to those subterranean activities (e.g., underground mining, etc.) occurring on the public lands or federal mineral estate. When administered as a use restriction (e.g., No Surface Use [NSU]), this phrase prohibits all but specified resource uses and activities in a certain area to protect particular sensitive resource values and property. This designation typically applies to small acreage sensitive resource sites (e.g., plant community study exclosure, etc.), and/or administrative sites (e.g., government ware-yard, etc.) where only authorized, agency personnel are admitted.

**Take:** As defined by the Endangered Species Act, "to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect, or attempt to engage in any such conduct."

**Tall Structures:** A wide array of infrastructures (e.g., poles that support lights, telephone and electrical distribution, communication towers, meteorological towers, high-tension transmission towers, and wind turbines) that have the potential to disrupt nesting birds by creating new perching/nesting opportunities and/or decreasing the use of an area. A determination as to whether something is considered a tall structure would be based on local conditions such as vegetation or topography.

**Technically/Economically Feasible:** Actions that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. It is the BLM's sole responsibility to determine which actions are technically and economically feasible. The BLM will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about

an applicant's costs and profit (modified from the CEQ's 40 Most Asked Questions and BLM NEPA Handbook, Section 6.6.3.).

**Temporal Management:** As used in this document, intensive control of the period during which BLM will allow activities that are physiologically disturbing or disruptive to normal wildlife activities such as elk migration.

**Temporary Special Use Permit:** A type of permit that terminates within one year or less after the approval date. All other provisions applicable to permits apply fully to temporary permits. Temporary special use permits are issued for seasonal or short-duration uses involving minimal improvement and investment.

**Temporary/Temporary Use:** A relative term that must be considered in the context of the resource values affected and the nature of the resource use/uses/activity/activities taking place. Generally, a temporary activity is considered to be one that is not fixed in place and is of short duration.

**Thermal Cover:** Cover used by animals to ameliorate the effects of weather. Optimally, thermal cover is provided by a stand of coniferous trees, 30 to 60 acres in size, at least 40 feet tall, with a canopy cover of at least 70%.

**Threatened Species:** Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the Federal Register as determined by the US Fish and Wildlife Service and the Secretary of Interior.

**Thrust Fault:** A reverse fault that is characterized by a low angle of inclination with reference to a horizontal plane.

**Timeliness:** The conservation benefits from compensatory mitigation accruing as early as possible or before impacts have begun (BLM Manual Section 1794).

**Timing Limitation:** A stipulation that prohibits surface disturbing or disruptive activities during specified times to protect identified resource values during sensitive periods (see also Stipulation Category). The stipulation does not apply to the operation or maintenance of production facilities unless the finding analysis demonstrates the continued need for such mitigation and the insufficiency of less stringent, project-specific mitigation measures."

**Traditional Cultural Property (TCP):** A Traditional Cultural Property is defined as a property that is eligible for inclusion in the National Register of Historic Places based on its association with the cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community. TCPs are rooted in a traditional community's history and are important in maintaining the continuing cultural identity of the community.

**Trail:** Linear routes managed for human-powered, stock, or off-road vehicle forms of transportation, or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high- clearance vehicles (H-8342-1, Travel and Transportation Management Handbook).

**Transition:** A shift between two states. Transitions are not reversible by simply altering the intensity or direction of factors that produced the change. Instead, they require new inputs such as revegetation or shrub removal. Practices, such as these, that accelerate succession are often expensive to apply.

**Transmission Line:** An electrical utility line with a capacity greater than or equal to 100 kV or a natural gas, hydrogen, or water pipeline greater than or equal to 24" in diameter.

**Trophy Game Animal:** Black bear, gray wolf, or mountain lion.

**Turbidity:** interference to the passage of light through water due to insoluble particles of soil, organics, microorganisms and other materials.

**Unavailable for Leasing:** No new oil and gas leases would be sold in areas with this designation. This term may be used interchangeably with "closed to leasing" for fluid minerals.

**Unitization:** Operation of multiple leases as a single lease under a single operator.

**Unpaved Road:** This road is regularly maintained, wide enough for at least two vehicles, provides access between major points, and serves a large area branching from it.

**Unsuitability Criteria:** Criteria of the federal coal management program by which lands may be assessed as unsuitable for all or certain stipulated methods of coal mining.

**Uplands:** Lands at higher elevations than alluvial plains or low stream terraces; all lands outside the riparian-wetland and aquatic zones.

**Utility Window:** Short segments of right-of-way corridor utilized when designating a full-length right-of-way corridor is not feasible (see Corridor definition).

**Utility-Scale and/or Commercial Energy Development:** A project that is capable of producing 20 or more megawatts of electricity for distribution to customers through the electricity-transmission-grid system.

**Utilization:** The proportion of the current year's forage production that is consumed or destroyed by animals. Utilization is usually expressed as a percentage.

**Valid Existing Rights:** Documented, legal rights, or interests in the land, which allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted or otherwise authorized under various statutes of law.

**Vegetative Cover:** The proportion of land or ground surface of an area covered by vegetation.

**Vegetation Treatments:** Management practices that change the vegetation structure to a different stage of development. Vegetation treatment methods include wildfire for resource benefit, prescribed fire, chemical, mechanical, and seeding.

**Viability:** For purposes of NFMA and its enabling regulations, viability is the availability of habitat that allows a species to persist on landscapes for long-periods (multi-generational) of time. It assumes that populations are abundant (sufficient numbers) and well-distributed (sufficient redundancy of populations) to provide for long-term population persistence on a landscape.

**Viewshed:** The landscape that can be directly seen under favorable atmospheric conditions from a viewpoint or along a transportation corridor.

**Visual Contrast Degree (BLM Handbook H-8431-1 – Visual Resource Contrast Rating):**

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.

- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

**Visual Quality Objectives (VQOs):** A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape. Visual Quality Objectives include:

- **Maximum Modification:** Activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.
- **Modification:** Activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.
- **Partial Retention:** Activities may be evident but must remain subordinate to the characteristic landscape.
- **Preservation:** Provides for ecological change only.
- **Retention:** Activities are not evident to the casual forest visitor.

**Visual Resource:** Visible feature of the landscape, such as land, water, vegetation, animals, and other features that make up the scenery of an area.

**Visual Resource Management (VRM):** The system by which BLM classifies and manages scenic values and visual quality of public lands. The system is based on research that has produced ways of assessing aesthetic qualities of the landscape in objective terms. After inventory and evaluation, lands are given relative visual ratings (management classes), which determine the amount of modification allowed for the basic elements of the landscape.

**Visual Resource Management (VRM) Classes:** Visual resource management classes define the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. The four classes are described below:

- Class I provides for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar areas where landscape modification activities should be restricted.
- Class II areas are those areas where changes in any of the basic elements (form, line, color, or texture) caused by management activity should not be evident in the characteristic landscape.
- Class III includes areas where changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.
- Class IV applies to areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape.

**Waiver (Oil and Gas):** Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold (H-1624-1 – Planning for Fluid Mineral Resources).

**Water Disposal Pit:** A pit designed under the authority of Onshore Oil and Gas Order #7 for containment of produced water (water produced in conjunction with oil and gas production) as defined in said order. Water disposal pits can be temporary or permanent.

**Water Evaporation Pit:** A water disposal pit that disposes of produced water via the process of evaporation.

**Water Influence Zone:** The water influence zone (WIZ) includes the geomorphic floodplain, riparian ecosystem, and inner gorge. Its minimum horizontal width (from top of each bank) is the greater of 100 feet or the mean height of mature dominant late-seral vegetation. It includes adjacent unstable and highly-erodible soils. The WIZ protects interacting aquatic, riparian, and upland functions by maintaining natural processes and resilience of soil, water, and vegetation systems.

**Water Table:** The plane surface between the zone of saturation and the zone of aeration. Measured as the elevation where the groundwater surface is at equilibrium with atmospheric pressure. The water table is typically measured with a shallow groundwater well and is equal to the elevation of the water surface in the well. This term is typically not used in reference to confined aquifers or aquifers under pressure. Also known as the groundwater table, groundwater surface, water level, and saturated surface, among others.

**Watershed:** The area of land, bounded by a divide, that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel, or to a lake, reservoir, or other body of water. Also called drainage basin or catchment.

**West Nile Virus:** A virus that is found in temperate and tropical regions of the world and most commonly transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in humans and can be lethal to birds.

**Wetlands:** Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mudflats, and natural ponds.

**Wild, Scenic, or Recreational River Areas:** The three classes of what is traditionally referred to as a "wild and scenic river." Designated river segments are classified as wild, scenic, and/or recreational, but the segments cannot overlap.

- **Wild River Areas:** Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- **Scenic River Areas:** Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- **Recreational River Areas:** Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

**Wildcat Well:** A well drilled in an area where oil and gas have not been previously discovered.

**Wilderness:** A congressionally designated area defined by the Wilderness Act of 1964, 16 USC §1131(a), as undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value.

**Wilderness Characteristics:** These attributes include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values. Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in section 2(c) of the Wilderness Act.

**Wilderness Study Area (WSA):** A roadless area that has been inventoried and found to be wilderness in character, has few human developments, and provides outstanding opportunities for solitude and primitive recreation, as described in Section 603 of the Federal Land Policy and Management Act of 1976 and in Section 2(c) of the Wilderness Act of 1964. "A Wilderness is (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." When these characteristics were found within a defined boundary, the presence of the wilderness resource was documented and the area was classified as a WSA (BLM Manual 6330).

**Wildfire:** A wildland fire originating from an unplanned ignition, such as lightning, volcanos, unauthorized and accidental human caused fires, and prescribed fires that are declared wildfires.

**Wildfire Suppression:** A response to wildfire, escaped wildland fire use, or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

**Wildland Fire:** A general term describing any non-structure fire that occurs in the wildland. Wildland fire is categorized into two distinct types: wildfire (unplanned) and prescribed fire (planned) (2009 Guidance for Implementation of Federal Wildland Fire Management Policy).

**Wildland Urban Interface (WUI):** Wildland Urban Interface (WUI): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetation fuels.

**Wildlife Services (WS):** A division of the USDA Animal and Plant Health Inspection Service (APHIS) that is responsible for the control of animals that are causing economic losses to agriculture, damage to property, or hazards to human health. (See also Animal Damage Control.)

**Withdrawal:** Withholding an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of federal land, other than property governed by the Federal Property and Administrative Services Act (40 U.S.C. 472), from one department, bureau, or agency to another department, bureau, or agency.

**Wyoming Connectivity Areas:** Condition in which the spatial arrangement of land cover types allows organisms and ecological processes (such as disturbance) to move across the landscape preventing population isolation. These connectivity areas could provide linkage within a state's sub-populations or between interstate sub populations.

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# APPENDIX A—PROJECT DESIGN FEATURES AND BEST MANAGEMENT PRACTICES

## A.1 PROJECT DESIGN FEATURES

### A.1.1 Introduction

Project design features establish specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each project design feature cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some project design features may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations (e.g., a larger or smaller protective area). All variations of project design features would require that at least one of the following be demonstrated in the National Environmental Policy Act of 1969 (NEPA) analysis associated with the project/activity:

- A specific project design feature is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that a project design feature be varied or rendered inapplicable.
- Through the coal planning process, it will be determined if areas are suitable for further coal leasing consideration. The coal planning process (see 43 CFR 3420.1-4 and 43 CFR 3461) will identify areas where coal leasing is not suitable or acceptable and those areas will be removed from further coal consideration for coal leasing and development (i.e., they will not be leased, so no development and no further protection needed).
- Mines (particularly large surface coal mines) do not have the flexibility to move operations, so it is assumed that if a lease is ultimately offered, sold, and issued, the federal coal lessee can use the entire coal lease for mining operations once they receive their federal permit. The following measures would be applied as project design features for all solid minerals. The measures would also apply to locatable minerals subject to valid existing rights and consistent with applicable law.

### A.1.2 Project Design Features for Lands and Realty, Range Management, Fluid Minerals, Coal Exploration, Wild Horses, Vegetation Management, Wildfire and Fuels Management, and Noise

Priority Habitats: Project design features and best management practices (BMP) are continuously improving as new science and technology become available and therefore are subject to change. Include from the following project design features those that are appropriate to mitigate effects from the approved action.

- When possible, require perch deterrents on existing or new overhead facilities. Encourage installation of perch deterrents on existing facilities.
- Where existing leases or rights-of-way (ROW) have had some level of development (road, fence, well, etc.), and are no longer in use, reclaim the site by removing these features and restoring the habitat.
- Work cooperatively with permittees, lessees, and other landowners to develop grazing management strategies that integrate both public and private lands into single management units.

Coordinate project design features, BMPs, and vegetative objectives with the Natural Resources Conservation Service (NRCS) for consistent application across jurisdictions where the BLM, Forest Service, and NRCS have the greatest opportunities.

- Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses. If these seedings are part of an Allotment Management Plan/Conservation Plan, then no restoration would be necessary. Assess the compatibility of these seedings as a component of a grazing system during land health assessments. For example, some introduced grass seedings are an integral part of a livestock management plan and reduce grazing pressure or serve as a strategic fuels management area.
- Where the federal government owns the surface, and the mineral estate is in non-federal ownership, apply appropriate BMPs to surface development.

## A.1.3 Roads

Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose. Locate roads to avoid important areas and habitats.

Coordinate road construction and use among federal fluid mineral lessees and ROW or special use authorization (SUA) holders.

Construct road crossings of ephemeral, intermittent, and perennial streams to minimize impacts to the riparian habitat, such as by crossing at right angles to ephemeral drainages and stream crossings.

Establish trip restrictions or minimization through use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).

Do not issue ROWs or SUAs to counties on energy development roads, unless for a temporary use consistent with all other terms and conditions including this document.

Designate all newly constructed routes for authorized use only (using signage, gates, etc.). Apply dust abatement on roads, well pads, and other surface disturbances.

Close and rehabilitate duplicate roads by restoring original landform and establishing desirable habitat conditions.

## A.1.4 Operations

Conduct reclamation on unused roads as soon as possible. Reclaim the permitted ROWs used in the construction of the running surface immediately.

Site and/or minimize linear ROWs or SUAs to reduce disturbance and fragmentation of sagebrush habitats.

Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.

Bury distribution power lines to the extent technically feasible.

Cover all fluid-containing pits and open tanks with netting (maximum 1.5-inch mesh size).

Equip tanks and other above-ground facilities with structures or devices that discourage nesting and perching of raptors and corvids.

Control the spread and effects of invasive non-native plant species, including treating weeds prior to surface disturbance and washing vehicles and equipment at designated wash stations when constructing in areas with weed infestations.

Clean up refuse.

Eliminate sumps.

Cluster disturbances, operations (hydraulic fracture stimulation, liquids gathering, etc.), and facilities. If the geology is exploratory and there is the potential that subsequent wells may not be drilled, do not disturb additional habitat until geology has proven additional wells can go on the pad and it is necessary to do so.

Use directional and horizontal drilling to the extent feasible as a means to reduce surface disturbance in relation to the number of wells.

Place infrastructure in already disturbed locations where the habitat has not been fully restored. Apply a phased development approach with concurrent reclamation.

Place liquid gathering facilities outside priority areas. To reduce truck traffic and perching and nesting sites for ravens and raptors, do not place tanks at well locations within priority habitat areas.

Pipelines must be under or immediately adjacent to the road.

Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use.

Restrict the construction of tall facilities, distribution power lines, and fences to the minimum number and amount needed.

Use only closed-loop systems for drilling operations, with no reserve pits.

Consider using oak (or other material) mats for drilling activities where topography permits to reduce vegetation disturbance and for temporary roads between closely spaced wells to reduce soil compaction and maintain soil structure to increase likelihood of vegetation reestablishment following drilling.

## A.1.5 Noise

Limit noise to less than 10 decibels above ambient measures (20-24 dBA) at sunrise at the perimeter of a lek during active lek season.

Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season.

Locate new compressor stations outside priority habitats and design them to reduce noise that may be directed toward priority habitat.

## A.1.6 Reclamation

Include objectives for ensuring habitat restoration in reclamation practices/sites. Address post-reclamation management in reclamation plan such that goals and objectives are to protect and improve habitat needs.

Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling, and revegetating cut-and-fill slopes where practicable; material used for irrigation must be removed thereafter.

Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.

Implement irrigation during interim or final reclamation for sites where establishment of seedlings has been shown or is expected to be difficult due to dry conditions.

Use mulching, soil amendments, and/or erosion blankets to expedite reclamation and to protect soils.

Identify and work with partners to increase native seed availability and work with plant material centers to develop new plant materials.

Consider potential changes in climate when proposing seedings using native plants. Consider seed collections from the warmer component within a species' current range for selection of native seeds.

Use Ecological Site Descriptions (ESD) or other protocols (e.g., Terrestrial Ecological Unit Inventory or Lands System Inventory) to identify the understory species and sagebrush subspecies needed to restore desirable habitat conditions.

## A.1.7 Vegetation Treatments/Fire and Fuels Management

During vegetation management project design, consider the utility of using livestock to strategically reduce fine fuels, and implement grazing management that will accomplish this objective. Consult with ecologists to minimize impacts to native perennial grasses.

Provide planning vegetation treatments information to personnel on habitat requirements, and identification of areas utilized locally.

Use vegetation treatment prescriptions that minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable plant species and reduce risk of hydrophobicity).

Design vegetation treatments in areas of high fire frequency which facilitate firefighter safety, reduce the potential acres burned and the fire risk to habitat. Additionally, develop maps for habitat which spatially display existing fuels treatments that can be used to assist suppression activities.

Restore prior perennial grass/shrub plant communities infested with invasive species to a species composition characterized by perennial grasses, forbs, and shrubs as outlined in ESDs.

Emphasize the use of native plant species, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.

Reduce the risk of vehicle or human-caused wildfires and the spread of invasive species into habitats. This could be minimized by planting perennial vegetation (e.g., green-strips) paralleling road ROWs.

Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, and strictly managed grazed strips) to aid in controlling wildfire, should wildfire occur near key habitats or important restoration areas (such as where investments in restoration have already been made).

As appropriate, utilize existing fuel breaks, such as roads or discrete changes in fuel type, as control lines to minimize the spread of fire.

Design vegetation treatments in habitats to strategically reduce wildfire threats in the greatest area. This may involve spatially arranging new vegetation treatments with past treatments, vegetation with fire-resistant seral stages, natural barriers, and roads in order to constrain fire spread and growth. This may require vegetation treatments to be implemented in a more linear versus block design.

Design post-Emergency Stabilization and Rehabilitation (ES&R) and Burn Area Emergency Rehabilitation (BAER) management to ensure long-term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horses, etc., to achieve and maintain the desired condition of ES&R and BAER projects.

Make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) a high priority for restoration efforts. Write specific vegetation objectives to reestablish sagebrush cover and desirable understory cover.

Where applicable, design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit habitat.

Provide training to fuels treatment personnel on habitat requirements, and identification of areas utilized locally.

Use burning prescriptions which minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of annual grass invasion).

Ensure proposed sagebrush treatments are planned with full interdisciplinary input from the BLM (pursuant to NEPA) and coordination with state fish and wildlife agencies, and that treatment acreage is conservative in the context of surrounding seasonal habitats and landscape.

Power-wash all vehicles and equipment involved in vegetation treatment and fuels management activities prior to entering the area to minimize the introduction of undesirable and/or invasive plant species.

Give priority for implementing specific habitat restoration projects in annual grasslands, first to sites which are adjacent to or surrounded by priority/core habitat or that reestablish continuity between priority habitats. Annual grasslands are a second priority for restoration when the sites are not adjacent to priority/core habitat but within two miles of priority/core habitat. The third priority for annual grassland habitat restoration projects is sites beyond two miles of priority/core habitat. The intent is to focus restoration outward from existing, intact habitat.

As funding and logistics permit, restore annual grasslands to a species composition characterized by perennial grasses, forbs, and shrubs or one of those referenced in land use planning documentation.

Design fuel treatments that would increase fire suppression efficiencies to protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas. Where applicable, incorporate roads and natural fuel breaks into fuel break design.

Develop state-specific reference information and resource materials containing maps, a list of resource advisors, contact information, local guidance, and other information relevant to agency administrators and fire suppression resources.

During periods of multiple fires, ensure line officers are involved in setting priorities.

Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics.

Assign a resource advisor with expertise or who has access to all extended attack fires in or near habitat. Prior to the fire season, provide training to resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals. Involve state wildlife agency expertise in fire operations through the following:

- Instructing resource advisors during preseason trainings

- Qualification as resource advisors
- Coordination with resource advisors during fire incidents
- Contributing to incident planning with information such as habitat features or other key data useful in fire decision making

On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in habitat areas.

Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas and heli-bases) in areas where physical disturbance to habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or other areas where there is existing disturbance or minimal sagebrush cover.

Minimize unnecessary cross-country vehicle travel during fire operations in habitat.

Minimize burnout operations in key habitat areas by constructing a direct fire line whenever safe and practical to do so.

Utilize retardant, mechanized equipment, and other available resources to minimize burned acreage during initial attack.

As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.

Adequately document the fire operation activities in habitat for potential follow-up coordination activities.

Compile the District/Forest-level information into state-wide tool boxes. Tool boxes will contain maps, a listing of resource advisors, contact information, local guidance, and other relevant information for each District/Forest, which will be aggregated into a state-wide document.

# A.2 BEST MANAGEMENT PRACTICES

The BMPs shown in this appendix are not intended to encompass all potentially applicable BMPs. Instead, Appendix A was developed to address specific issues brought forward during scoping, alternative development, and comments from the public and cooperating agencies.

## A.2.1 Best Management Practices for Important Cultural Resource and Trail Settings

The BLM should use standard measures to reduce the visual impact of proposed actions within trail settings, where setting is a contributing element of eligibility to the National Register of Historic Places and the setting has integrity. Standard measures should be used as stipulations or conditions of approval attached to authorizations. Standard measures, or BMPs, for reducing the visibility of proposed actions include, but are not limited to:

- Apply a controlled surface use stipulation to surface-disturbing activities or surface occupancy.
- Visual Contrast Ratings and, as appropriate, require visual simulations.
- Consolidate project facilities among oil and gas developers; maximize use of existing locations.
- Develop coordinated road and pipeline systems.
- Reduce the amount of surface development by consolidating facilities.

- Use low profile facilities.
- Locate projects to maximize the use of topography and vegetation to screen development.
- Design projects to blend with topographic forms and existing vegetation patterns.
- Use environmental coloration or camouflage techniques to reduce the visual impact of facilities that cannot be completely hidden.
- Use broken linear patterns for road developments to screen roads as much as possible. This can include feathering or blending of the edges of linear ROWs to soften the dominant line form.
- For livestock control, use electric fencing with low-visibility fiberglass posts and environmental colors.
- Design linear facilities and seismic lines to run parallel to key observation points rather than perpendicular.
- Position facilities to present less of a visual impact (e.g., a facility with several tanks lined up so that one obscures the visibility of the others).

## A.2.2 Decontamination Procedure for Aquatic Invasive Species

To prevent the spread of aquatic invasive species, the Wyoming Game and Fish Department recommends following the guidelines outlined in the *Aquatic Invasive Species in Wyoming* brochure. Specific BMPs to aquatic invasive species spread prevention include, but are not limited to:

Decontamination should first occur before arrival at a project site, so aquatic invasive species are not transferred from the last visited area. Decontamination should occur again before leaving a project site, so aquatic invasive species are not transferred to the next site.

- Decontamination may consist of either:
  - Drain all water from equipment and compartments, clean equipment of all mud, plants, debris, or animals, and dry equipment for five days in summer (June, July, and August); 18 days in spring (March, April, and May) and fall (September, October, and November); or three days in winter (December, January, and February) when temperatures are at or below freezing.
  - Use a high pressure (2,500 pounds per square inch [psi]) hot water (140°F) pressure washer to thoroughly wash equipment and flush all compartments that may hold water.

## A.2.3 Wyoming Forestry Best Management Practices

The Wyoming Forestry Best Management Practices: Forestry BMPs Water Quality Protection Guidelines (link below) describes BMPs for the management of forest lands. These BMPs are a set of voluntary preferred methods of forestland management designed to protect water quality and forest soils, and are intended for use on non-industrial private, forest industry, state-owned and federal forests. http://wsfd.wyo.gov/forest-management/bmp-s

## A.2.4 Reseeding Best Management Practices

The following recommendations may be required depending on the project size and location:

- Proposed actions where native brush species located on lands proposed to be disturbed are unique and desirable for interim and final reclamation purposes, and the seed supply for these desirable brush species is not commercially available, will be collected from the area and stored using the procedures of the Seeds of Success program. Seedlings or plugs of common dominant species will

be propagated, preferably locally, in preparation for use in portions of area to be reclaimed to expedite vegetation recovery.

- Areas of sustainable plant communities and populations (where they do not conflict with other allowable resource uses) will be identified as sources for native plant material and will be managed under consideration of the need to consistently produce seed stocks of noncommercially available materials for use in reclamation and restoration work (e.g., to support reclamation of abandoned mine lands or well pads or to supplement commercially available seeds in high fire years).

## A.2.5 Engineering Best Management Practices

Road maintenance, construction, and any other related travel will be mandated by BLM Manual 9113. BLM Manual 9113 provides for BMPs to be used in evaluating, maintaining, and constructing BLM travel and transportation routes. As stated in Manual 9113, "Bureau roads must be designed to an appropriate standard no higher than necessary to accommodate their intended functions adequately (timber hauling administrative access, public travel); and design, construction, and maintenance activities must be consistent with national policies for safety, aesthetics, protection and preservation of cultural, historic, and scenic values, and accessibility for the physically handicapped. The following is a list of BMPs that are recommended but not binding for road maintenance practices:

Design roads to minimize total disturbance, to conform with topography, and to minimize disruption of natural drainage patterns.

- Base road design criteria and standards on road management objectives such as traffic requirements of the proposed activity and the overall transportation plan, economic analysis, safety requirements, resource objectives, and minimizing damage to the environment.
- Locate roads on stable terrain such as ridge tops, natural benches, and flatter transitional slopes near ridges, and valley bottoms, and moderate side slopes and away from slumps, slide prone areas, concave slopes, clay beds, and where rock layers dip parallel to the slope. Locate roads on well-drained soil types; avoid wet areas when possible.
- Construct, cut, and fill slopes to be approximately three horizontal (h):one vertical (v) or flatter where feasible. Locate roads to minimize heights of cutbanks. Avoid high, steeply sloping cutbanks in highly fractured bedrock.
- Avoid headwalls, midslope locations on steep, unstable slopes, fragile soils, seeps, old landslides, side slopes in excess of 70%, and areas where the geologic bedding planes or weathering surfaces are inclined with the slope. Implement extra mitigation measures when these areas cannot be avoided.
- Construct roads for surface drainage by using outslopes, crowns, grade changes, drain dips, waterbars, and in-sloping to ditches as appropriate.
- Sloping the road base to the outside edge for surface drainage is normally recommended for local spurs or minor collector roads where low-volume traffic and lower traffic speeds are anticipated. This is also recommended in situations where long intervals between maintenance will occur and where minimum excavation is wanted. Out-sloping is not recommended on steep slopes. Sloping the road base to the inside edge is an acceptable practice on roads with steep side slopes and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure.
- Crown and ditching is recommended for arterial and collector roads where traffic volume, speed, intensity and user comfort are considerations. Recommended gradients range from 0% to 15% where crown and ditching may be applied, as long as adequate drainage away from the road surface and ditch lines is maintained.

- Minimize excavation, when constructing roads, through the use of balanced earthwork, narrowing road widths, and end hauling where side slopes are between 50% and 70%.
- If possible, construct roads when soils are dry and not frozen. When soils or road surfaces become saturated to a depth of three inches, BLM-authorized activities should be limited or ceased unless otherwise approved by the Authorized Officer.
- Consider improving inadequately surfaced roads that are to be left open to public traffic during wet weather with gravel or pavement to minimize sediment production and maximize safety.
- Retain vegetation on cut slopes unless it poses a safety hazard or restricts maintenance activities. Roadside brushing of vegetation should be done in a way that prevents disturbance to root systems and visual intrusions (i.e., avoid using excavators for brushing).
- Retain adequate vegetation between roads and streams to filter runoff caused by roads.
- Avoid riparian/wetland areas where feasible; locate in riparian/wetland areas only if the roads do not interfere with the attainment of resource objectives.
- Minimize the number of unimproved stream crossings. When a culvert or bridge is not feasible, locate drive-through (low water crossings) on stable rock portions of the drainage channel. Harden crossings with the addition of rock and gravel if necessary. Use angular rock if available.
- Locate roads and limit activities of mechanized equipment within stream channels to minimize their influence on riparian areas. When crossing a stream is necessary, design the approach and crossing perpendicular to the channel, where practicable. Locate the crossing where the channel is well defined, unobstructed, and straight.
- Avoid placing fill material in floodplains unless the material is large enough to remain in place during flood events.
- Use drainage dips instead of culverts on level 2 roads where gradients will not present a safety issue. Locate drainage dips in such a way so that water will not accumulate or where outside berms prevent drainage from the roadway. Locate and design drainage dips immediately upgrade of stream crossings and provide buffer areas and catchment basins to prevent sediment from entering the stream.
- Construct catchment basins, brush windrows, and culverts in a way to minimize sediment transport from road surfaces to stream channels. Install culverts in natural drainage channels in a way to conform with the natural streambed gradients with outlets that discharge onto rocky or hardened protected areas.
- Design and locate water crossing structures in natural drainage channels to accommodate adequate fish passage, provide for minimum impacts to water quality, and to be capable of handling a 100-year event for runoff and floodwaters.
- Use culverts that pass, at a minimum, a 25-year storm event or have a minimum diameter of 24 inches for permanent stream crossings and a minimum diameter of 18 inches for road cross drains.
- Replace undersized culverts and repair or replace damaged culverts and downspouts. Provide energy dissipaters at culvert outlets or drainage dips.
- Locate culverts or drainage dips in such a manner as to avoid discharge onto unstable terrain such as headwalls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Culverts should be placed on solid ground to avoid road failures.
- Proper sized aggregate and riprap should be used during culvert construction. Place riprap at culvert entrances to streamline waterflow and reduce erosion.

- Establish adapted vegetation on all cuts and fill immediately following road construction and maintenance.
- Remove berms from the downslope side of roads, consistent with safety considerations.
- Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close abandoned roads to traffic. Physically obstruct the road with gates, large berms, trenches, logs, stumps, or rock boulders as necessary to accomplish permanent closure.
- Abandon and rehabilitate roads that are no longer needed. Leave these roads in a condition that provides adequate drainage. Remove culverts.
- When plowing snow for winter use of roads, provide breaks in snow berms to allow for road drainage. Avoid plowing snow into streams. Plow snow only on existing roads.
- Maintenance should be performed to conserve existing surface material, retain the original crowned or out-sloped self-draining cross section, prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it can cause stream sedimentation or weaken slump-prone areas. Avoid undercutting back slopes.
- Do not disturb the toe of cut slopes while pulling ditches or grading roads. Avoid sidecasting road material into streams.
- Grade roads only as necessary. Maintain drain dips, waterbars, road crown, in-sloping and outsloping, as appropriate, during road maintenance.
- Maintain roads in special areas according to special area guidance. Generally, retain roads within existing disturbed areas and sidecast material away from the special area.
- When landslides occur, save all soil and material usable for reclamation or stockpile for future reclamation needs. Avoid sidecasting of slide material where it can damage, overload, and saturate embankments, or flow into down-slope drainage courses. Reestablish vegetation as needed in areas where vegetation has been destroyed due to sidecasting.
- Strip and stockpile topsoil ahead of construction of new roads, if feasible. Reapply soil to cut and fill slopes prior to revegetation.

## A.2.6 Best Management Practices for Livestock Grazing

The purpose of this section is not to attempt to select certain practices and require that only those be used. It is not possible to evaluate all the known practices and make determinations as to which are best. What is best must be determined as a result of a site-specific investigation of the proposed management action. No one management practice is best suited to every site or situation. BMPs must be adaptive and monitored regularly to evaluate effectiveness.

The following sources contain information regarding grazing BMPs. Over time, other sources of information will become available and will be considered in proposed management actions.

1. The National Range and Pasture Handbook

   http://www.glti.nrcs.usda.gov/technical/publications/nrph.html

2. Best Management Practices for Grazing

   http://deq.state.wy.us/wqd/watershed/Downloads/NPS%20Program/92602.pdf

## A.2.7 Best Management Practices for Visual Resources

The following BMPs would be considered to reduce impacts to all visual resource management classes within the planning area:

- Burying of distribution power lines and flow lines in or adjacent to access roads
- Repeating elements of form, line, color, and texture to blend facilities and access roads with the surrounding landscape
- Painting all above-ground structures, production equipment, tanks, transformers, and insulators not subject to safety requirements to blend with the natural color of the landscape, using paint that is a non-reflective "standard environmental color" approved by the BLM visual resource management specialist: All new equipment brought onto the sites should be painted the same color(s).
  - Semi-gloss paints will stain and fade less than flat paints
  - Typically, the background is a vegetated background, and seldom a solid background
  - The selected color should be one or two shades darker than the background
  - Consider the predominant season of public use; however, never paint an object to match snow
- Performing final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography
- Avoiding facility placement on steep slopes, ridge tops, and hilltops
- Screening facilities from view
- Following contours of the land to reduce unnecessary disturbance
- Recontouring and revegetating disturbed areas to blend with the surrounding landscape
- Reclaiming unnecessary access roads as soon as possible to the original contour
- Using gravel of a similar color to adjacent dominant soil and vegetation colors for road surfacing
- Use dust abatement to reduce fugitive dust, as well as minimize the light colors of the routes
- Avoiding locating pads in areas visible from primary roads
- Using subsurface or low-profile facilities to prevent protrusion above horizon line when viewed from any primary road
- Co-locating wells when possible
- Locating facilities far enough from the cut and fill slopes to facilitate recontouring for interim reclamation
- Locating wells away from prominent features, such as rock outcrops
- Completing an annual transportation plan for an entire area before beginning construction and making a layout that will minimize disturbance and visual impact
- Designing and constructing all new roads to a safe and appropriate standard "no higher than necessary" to accommodate their intended use
- Locating roads far enough off the back of ridgelines so they aren't visible from state, county, or BLM roads
- Using remote monitoring to reduce traffic and road requirements
- Removing unused equipment, trash, and junk immediately

- Construction activities scheduled to occur between 7 a.m. and 6 p.m. will not take place before or past daylight hours (which vary according to season) near residences. This will eliminate the need to introduce high-wattage lighting sources to operate in the dark near residences.
- Building design will be required to include low-intensity interior safety lighting for use during after-hours instead of using standard interior lighting for safety purposes. This practice will decrease the amount of nighttime light that would occur from using standard interior lighting as safety lighting.
- Use of interior lights to ensure building safety will be allowed, but the unnecessary overuse of interior nighttime lighting would be prevented by requiring that interior spaces implement a "lights-off" policy. This practice requires that all non-safety lighting be turned off at night (such as in offices and hallways), after business hours. This may be accommodated by utilizing automatic motion sensor lighting that is programmed for use after-hours.
- Use of harsh mercury vapor or low-pressure sodium bulbs will be prohibited.
- All artificial outdoor lighting will be limited to safety and security requirements, designed using the Illuminating Engineering Society's design guidelines, and in compliance with International Dark-Sky Association approved fixtures.
- All lighting will be designed to have minimum impact on the surrounding environment and will use downcast, cut-off type fixtures that are shielded and direct the light only toward objects requiring illumination. Therefore, lights will be installed at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent lands, open spaces, or backscatter into the nighttime sky.
- The lowest allowable wattage will be used for all lighted areas, and the number of nighttime lights needed to light an area will be minimized to the highest degree possible.
- Light fixtures will have non-glare finishes that will not cause reflective daytime glare. Lighting will be designed for energy efficiency and have daylight sensors or be timed with an on/off program.
- Lights will provide good color rendering with natural light qualities with the minimum intensity feasible for security, safety, and personnel access. Lighting, including light color rendering and fixture types, will be designed to be aesthetically pleasing.
- LED lighting will avoid the use of blue-rich white light lamps and use a correlated color temperature that is no higher than 3,000 Kelvin, consistent with the International Dark-Sky Association's Fixture Seal of Approval program.

**Wind:**

- Considering topography when siting wind turbines
- Clustering or grouping turbines to break up overly long lines of turbines
- Creating visual order and unity among turbine clusters
- Siting wind turbines to minimize shadow flicker
- Relocating turbines to avoid visual impacts
- Using audio visual warning system (AVWS) technology to reduce night sky impacts
- Creating visual uniformity in shape, color, and size
- Using fewer, larger turbines
- Using non-reflective coatings on wind turbines and other facility components

- Prohibiting commercial messages and symbols on wind turbines
- Keeping wind turbines in good repair
- Cleaning nacelles and towers

**Solar:**

- Developing a glint and glare assessment, mitigation, and monitoring plan
- Using dry-cooling technology for CSP facilities
- Siting and operate solar collectors to avoid offsite glare
- Screening solar collectors to avoid off-site glare
- Using color-treated solar collectors and support structures
- Maintaining color-treated surfaces of solar collectors
- Avoiding complete removal of vegetation beneath solar collector array
- Prohibiting commercial messages and symbols on solar power towers and solar collector arrays

**Geothermal:**

- Using dry-cooling technology
- Screening pipelines from roads and other sensitive viewpoints
- Painting or coat aboveground pipelines
- Minimizing drill rig and well test facility lighting

## A.2.8 Best Management Practices for Water Resources

BMPs would be appropriate for consideration to mitigate potential water quality impacts when proposed oil and gas activities are within 500 feet of riparian areas and surface waters of the state, Source Water Protection Areas identified in Wellhead, or Source Water Protection Plans approved by the local governing body, and "High" and "Moderately High" sensitivity aquifers (identified throughout the use of the Wyoming Groundwater Vulnerability Assessment Handbook (as updated over time). BMPs to mitigate impacts to water resources include, but are not limited to, the following:

- Those management approaches for oil and gas activities required by Source Water and Wellhead Protection Plans approved by the local governing body
- Use closed loop drilling systems.
- Do not use evaporation ponds in proximity to shallow aquifers.
- Do not use unlined ponds or pits overlying sensitive aquifers.
- Line surface impoundment ponds (evaporation ponds or drilling pits) with synthetic liners and subsequently decommission them by removing all contaminants and liner and reclaiming the area.
- Identify water supply wells and implement appropriate protection measures for the affected aquifer(s) as necessary to prevent the introduction of contaminants into the well.
- Require a monitoring plan which includes collection of baseline and periodic water quality data from potentially affected water supply wells, identification of parameters to monitor, reporting results to BLM and well owners, and reporting to Wyoming Department of Environmental Quality-Air.

- Review the geology of shallow aquifers to determine well construction requirements, which may include cementing to surface and drilling with a fresh water mud system.
- Requirement for surface casing and cement to a specific formation or depth to protect aquifers at depth that need protection:
  - Set surface casing below the lowermost underground sources of drinking water and set into a confining (e.g., shale) layer.
  - Set an intermediate string of casing and cement in the event of deep aquifers.
  - Require submittal of a well logging plan and document submittal of plan to ensure proper well construction to protect groundwater. If a lost circulation event occurs during the installation of surface casing, a cement bond log will be required to be run on the surface casing to determine if the cement is adequate and protective.
  - Review the geology of shallow aquifers in proximity to groundwater development activities to determine potential impacts to flow patterns supporting water elements such as fen, wetlands, springs, and seeps, and ponds.

## A.2.9 Reducing Impacts from Fluid Mineral Construction, Operation, and Reclamation

The following BMPs would be considered to reduce impacts from fluid mineral construction, operation, and reclamation:

- Directional drilling
- Drilling of multiple wells from a single pad
- Transportation planning (to reduce road density and traffic volumes)
- Remote well monitoring
- Piping of produced liquids to centralized tank batteries offsite to reduce traffic to individual wells
- Submersible pumps
- Belowground wellheads
- Bussing of workers (to reduce traffic volume)
- Flareless well completions
- Pitless drilling
- Burying of distribution power lines and flow lines in or adjacent to access roads
- Design and construction of all new roads to a safe and appropriate standard “no higher than necessary” to accommodate their intended use
- Reuse of old roads or pads
- Interim reclamation of well locations and access roads soon after the well is put into production
- Avoidance of facility placement on steep slopes, ridge tops, and hilltops
- Storage of chemicals within secondary containment in case of a spill
- Onsite bioremediation of oil field wastes and spills
- Removal of trash, junk, waste, and other materials not in use

# APPENDIX B—STIPULATIONS: EXCEPTION, MODIFICATION, AND WAIVER CRITERIA

## INTRODUCTION

This appendix lists the stipulations on oil and gas leases referenced in Chapter 2 of this Proposed Resource Management Plan (RMP) and final Environmental Impact Statement (EIS). Three types of surface stipulations can be applied to oil and gas leases to protect identified resource values: (1) no surface occupancy (NSO), (2) timing limitation stipulations (TLS), and (3) controlled surface use (CSU).

- No Surface Occupancy: Use of occupancy of the land surface for fluid mineral exploration of development is prohibited to protect identified resources values.
- Timing Limitation: Prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project specific mitigation measures would be insufficient.
- Controlled Surface Use: Use and occupancy is allowed (unless restricted by another stipulation) but identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the NSO or TLS.

The BLM may apply TLS and CSU restrictions, as conditions of approval (COA) on an Application for Permit to Drill (APD) consistent with lease rights. The criteria for exceptions to COAs on APDs are the same as that for leasing in Table 2-4 (Appendix V). Additionally, COAs on APDs do not apply to other portions of the lease such as maintenance and operation of existing facilities.

The RMP serves as the vehicle for explaining the conditions under which waivers, exceptions, or modifications of lease stipulations may be granted.

### Lease Notices

A lease notice provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A lease notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions (Uniform Format for Oil and Gas Lease Stipulations, March 1989. Rocky Mountain Regional Coordinating Committee). "An information [lease] notice has no legal consequences, except to give notice of existing requirements, and may be attached to a lease by the authorized officer (AO) at the time of lease issuance to convey certain operational, procedural or administrative requirements relative to lease management within the terms and conditions of the standard lease form. Information [lease] notices shall not be a basis for denial of lease operations (43 Code of Federal Regulations [CFR] 3101.1-3)." There are three standard lease notices that are attached to every lease issued by the BLM within Wyoming.

### LEASE NOTICE NO. 1

Under Regulation 43 CFR 3101.1-2 and terms of the lease (BLM Form 3100-11), the authorized officer may require reasonable measures to minimize adverse impacts to other resource values, land uses, and users not addressed in lease stipulations at the time operations are proposed. Such reasonable measures may include, but are not limited to, modification of siting or design of facilities, timing of operations, and specification of interim and final reclamation measures, which may require relocating proposed operations up to 200 meters, but not off the leasehold, and prohibiting surface disturbance activities for up to 60 days.

The lands within this lease may include areas not specifically addressed by lease stipulations that may contain special values, may be needed for special purposes, or may require special attention to prevent

damage to surface and/or other resources. Possible special areas are identified below. Any surface use or occupancy within such special areas will be strictly controlled or, if absolutely necessary, prohibited. Appropriate modifications to imposed restrictions will be made for the maintenance and operation of producing wells.

1. Slopes in excess of 25%.
2. Within 500 feet of surface water and/or riparian areas.
3. Construction with frozen material or during periods when the soil material is saturated or when watershed damage is likely to occur.
4. Within 500 feet of Interstate highways and 200 feet of other existing rights-of-way (i.e., U.S. and state highways, roads, railroads, pipelines, powerlines).
5. Within 0.25 mile of occupied dwellings.
6. Material sites.

**GUIDANCE:**

The intent of this notice is to inform interested parties (potential lessees, permittees, operators) that when one or more of the above conditions exist, surface-disturbing activities will be prohibited unless or until the permittee or the designated representative and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development and become a condition for approval when authorizing the action. Specific threshold criteria (e.g., 500 feet from water) have been established based upon the best information available.

However, geographical areas and time periods of concern must be delineated at the field level (i.e., "surface water and/or riparian areas" may include both intermittent and ephemeral water sources or may be limited to perennial surface water).

The referenced oil and gas leases on these lands are hereby made subject to the stipulation that the exploration or drilling activities will not interfere materially with the use of the area as a materials site/free use permit. At the time operations on the above lands commence, notification will be made to the appropriate agency. The name of the appropriate agency may be obtained from the proper BLM Field Office.

THIS NOTICE APPLIES TO ALL PARCELS.

**LEASE NOTICE NO. 2**

**BACKGROUND:**

The BLM, by including National Historic Trails within its National Landscape Conservation System, has recognized these trails as national treasures. Our responsibility is to review our strategy for management, protection, and preservation of these trails. The National Historic Trails in Wyoming, which include the Oregon, California, Mormon Pioneer, and Pony Express Trails, as well as the Nez Perce Trail, were designated by Congress through the National Trails System Act (Public Law [P.L.] 90-543; 16 United States Code [U.S.C.] 1241-1251) as amended through P.L. 106-509 dated November 13, 2000.

Protection of the National Historic Trails is normally considered under the National Historic Preservation Act (NHPA) (P.L. 89-665; 16 U.S.C. 470 et seq.) as amended through 1992 and the National Trails System Act.

Additionally, Executive Order 13195, “Trails for America in the 21st Century,” signed January 18, 2001, states in Section 1: “Federal agencies will...protect, connect, promote, and assist trails of all types

throughout the United States. This will be accomplished by: (b) Protecting the trail corridors associated with national scenic trails and the high priority potential sites and segments of national historic trails to the degrees necessary to ensure that the values for which each trail was established remain intact."

Therefore, the BLM will be considering all impacts and intrusions to the National Historic Trails, their associated historic landscapes, and all associated features, such as trail traces, grave sites, historic encampments, inscriptions, natural features frequently commented on by emigrants in journals, letters and diaries, or any other feature contributing to the historic significance of the trails. Additional National Historic Trails will likely be designated amending the National Trails System Act. When these amendments occur, this notice will apply to those newly designated National Historic Trails as well.

**STRATEGY:**

The BLM will proceed in this objective by conducting a viewshed analysis on either side of the designated centerline of the National Historic Trails in Wyoming, except, at this time, for the Nez Perce Trail, for the purpose of identifying and evaluating potential impacts to the trails, their associated historic landscapes, and their associated historic features. Subject to the viewshed analysis and archeological inventory, reasonable mitigation measures may be applied. These may include, but are not limited to, modification of siting or design of facilities to camouflage or otherwise hide the proposed operations within the viewshed. Additionally, specification of interim and final reclamation measures may require relocating the proposed operations within the leasehold. Surface-disturbing activities will be analyzed in accordance with the National Environmental Policy Act (NEPA) of 1969 (P.L. 91190; 42 U.S.C. 4321-4347) as amended through P.L. 94-52, July 3, 1975, and P.L. 94-83, August 9, 1975, and the NHPA, supra, to determine if any design, siting, timing, or reclamation requirements are necessary. This strategy is necessary until the BLM determines that, based on the results of the completed viewshed analysis and archeological inventory, the existing land use plans (RMP) have to be amended. The use of this lease notice is a predecisional action, necessary until final decisions regarding surface-disturbing restrictions are made. Final decisions regarding surface-disturbing restrictions will take place with full public disclosure and public involvement over the next several years if BLM determines that it is necessary to amend existing land use plans.

**GUIDANCE:**

The intent of this notice is to inform interested parties (potential lessees, permittees, operators) that when any oil and gas lease contains remnants of National Historic Trails or is located within the viewshed of a National Historic Trails' designated centerline, surface-disturbing activities will require the lessee, permittee, operator or, their designated representative, and the SMA to arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development and become a condition for approval when authorizing the action.

THIS NOTICE APPLIES TO ALL PARCELS.

The following three stipulations are applied to all BLM-administered fluid mineral leases within Wyoming.

**LEASE STIPULATION NO. 1: CULTURAL RESOURCES**

This lease may be found to contain historic properties and/or resources protected under the NHPA, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, Executive Order 13007, or other statutes and executive orders. The BLM will not approve any ground-disturbing activities that may affect any such properties or resources until it completes its obligations (e.g., State Historic Preservation Officer [SHPO]) and tribal consultation) under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

**LEASE STIPULATION NO. 2: ENDANGERED SPECIES ACT SECTION 7 CONSULTATION**

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other Special Status Species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. The BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended., 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.

**LEASE STIPULATION NO. 3: MULTIPLE MINERAL DEVELOPMENT**

Operations will not be approved which, in the opinion of the authorized officer, would unreasonably interfere with the orderly development and/or production from a valid existing mineral lease issued prior to this one for the same lands.

# EXCEPTIONS, MODIFICATIONS, AND WAIVERS

An operator submitting a plan of operations to the BLM may request an exception, modification, or waiver of a stipulation included in a lease.

- Exception: Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.
- Modification: Fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.
- Waiver: Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

> *According to 43 CFR 3101.1-4, "A stipulation included in an oil and gas lease shall be subject to modification of waiver only if the authorized officer determines that the factors leading to its inclusion on the lease have change sufficiently to make the protection provided by the stipulation no longer justified or if the proposed operations would not cause unacceptable impacts." Exceptions, modifications, and waivers must be supported by appropriate environmental analysis and documentation. If the authorized officer has determined, prior to lease issuance, that a stipulation involves an issue of major concern to the public, modification or waiver of the stipulation shall be subject to public review for at least a 30-day period. In such cases, the stipulation shall indicate that public review is required before modification or waiver. If subsequent to lease issuance the authorized officer determines that a modification or waiver of a lease term or stipulation is substantial, the modification or waiver shall be subject to public review for at least a 30-day period.*

Table B-1 includes the criteria for considering request for exceptions, modifications, and waivers according to stipulations applied for the Proposed RMP.

# Table B-1

| Description | Proposed RMP |
|---|---|
| **Management #** | 1107 |
| **Protected Resource** | Soils with low reclamation potential. |
| **RMP Affected Area** | Areas with low reclamation potential (as per Natural Resources Conservation Service [NRCS] soil rating map). |
| **Stipulation** | CSU |
| **Action Text** | Avoid surface-disturbing activities in areas with limited reclamation potential (as per NRCS soil rating), subject to adequate mitigation of impacts following BLM mitigation policies. The operator must submit an approved mitigation plan before a proposed project will be approved.<br>CSU for fluid minerals. |
| **Stipulation Description** | **Stipulation:** Surface occupancy or use is restricted on limited reclamation potential areas such as areas possessing sensitive geologic formations, limited reclamation potential soils, biological crusts, soils with low reclamation potential, and soils with highly erosive characteristics.<br>(1) Prior to surface disturbance on limited reclamation potential areas, a site-specific construction, stabilization, and reclamation plan (Plan) must be submitted to the BLM by the applicant as a component of the APD (BLM Form 3160-3) or Sundry Notice (BLM Form 3160-5) – Surface Use Plan of Operations. The Plan must include designs approved and stamped by a licensed engineer. The operator shall not initiate surface-disturbing activities unless the BLM AO has approved the Plan (with conditions, as appropriate). The Plan must demonstrate to the BLM AO's satisfaction how the operator will meet the following performance standards:<br>• The disturbed area will be stabilized with no evidence of accelerated erosion features.<br>• The disturbed area shall be managed to ensure soil characteristics approximate an appropriate reference site with regard to erosional features to maintain soil productivity and sustainability.<br>• Slope stability is maintained preventing slope failure and erosion.<br>• Sufficient viable topsoil is maintained for ensuring successful final reclamation. At locations where interim reclamation will be completed, this will be accomplished by respreading all salvaged topsoil over the areas of interim reclamation.<br>• The original landform and site productivity will be partially restored during interim reclamation and fully restored as a result of final reclamation.<br>(2) As mapped by the NRCS SSURGO Order 3 soil survey or as determined by BLM evaluation of the area. For the purpose of (3) ensuring successful reclamation and erosion control on limited reclamation potential areas in order to meet the standards outlined in Chapter 6 of the BLM's Oil and Gas Gold Book, and Wyoming Reclamation Policy.<br>**Purpose:** To protect soils with low reclamation potential. |

| Description | Proposed RMP |
|---|---|
| | **Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a NRCS soil survey and BLM evaluation. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** This stipulation may be waived over the entire leasehold if the BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon NRCS mapping and BLM evaluation. |
| **Management #** | 1116 |
| **Protected Resource** | Scientific and scenic values of Pilot Butte and Emmons Cone. |
| **RMP Affected Area** | Pilot Butte (121 acres), and Emmons Cone (60 acres). |
| **Stipulation** | NSO |
| **Action Text** | The natural values of Boars Tusk, Pilot Butte, and Emmons Cone would be protected.<br>Surface occupancy and surface-disturbing activities are prohibited in these areas, unless such activity would enhance management of these geologic features. Interpretive facilities would be allowed. |
| **Stipulation Description** | **Stipulation:** No surface occupancy or use will be allowed in the areas surrounding Pilot Butte and Emmons Cone as shown on Map 2-10.<br>**Purpose:** To protect the scientific and scenic values of Pilot Butte and Emmons Cone.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 1313 |
| **Protected Resource** | 100-year floodplain, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages. |
| **RMP Affected Area** | See Map 2-10 |
| **Stipulation** | CSU |

| Description | Proposed RMP |
|---|---|
| **Action Text** | Avoid placement of permanent facilities within 100-year floodplains, and within 1,320 feet (¼ mile) of wetlands, riparian areas, and perennial streams. Avoid surface-disturbing and construction activities within 500 feet of the outer edge of wetland/riparian areas or perennial streams. Avoid surface-disturbing and construction activities within 100 feet of the edge of the inner gorge of intermittent channels or ephemeral drainages. Designate these areas as a ROW avoidance area. Allow linear crossings if a site-specific analysis by a BLM AO determines that no adverse impacts would be likely to occur and a plan to mitigate potential impacts on water quality is approved. Allow structures that would enhance the protection and management of streams, wetlands, and riparian areas. Approval will be on a case-by-case basis and subject to adequate mitigation of impacts following BLM mitigation policies and Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities.<br>CSU for fluid minerals. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities within 1,320 feet (1/4 mile) of 100-year floodplains, wetlands, riparian areas, perennial streams, and within 500 feet from of the edge of the inner gorge of large ephemeral drainages, unless a plan is first approved by the AO that demonstrates the proposed action will not affect the resource.<br>**Purpose:** To protect 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include 100-year floodplains, wetlands, riparian areas, perennial streams, or large ephemeral drainages. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 1317 |
| **Protected Resource** | Aquifer recharge areas. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | CSU |
| **Action Text** | Manage activities in aquifer recharge areas to protect groundwater quality and quantity to ensure continued function. Manage activities in aquifer recharge areas to maintain, at a minimum, recharge volume and groundwater quality by limiting road density, chemical use and storage, and surface occupancy to maintain a healthy aquifer recharge area.<br>CSU for fluid minerals. Apply the above actions to identified and mapped aquifer recharge areas. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities on lands identified as the aquifer recharge areas unless a plan is first approved by the AO that demonstrates the proposed action will not affect the resource. |

| Description | Proposed RMP |
|---|---|
| | **Purpose:** To protect the aquifer recharge areas.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not impair the function or utility of the site.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include aquifer recharge areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 1319 |
| **Protected Resource** | Aquifer recharge area for the towns of Superior and McKinnon. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | Closed |
| **Action Text** | Avoid surface-disturbing activities and subsurface mineral activity in the identified or designated aquifer recharge area for the towns of Superior and McKinnon.<br>Unavailable to fluid minerals leasing.<br>Designate as a ROW avoidance area. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 1325 |
| **Protected Resource** | Area of shallow unconfined aquifers. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 2202 |
| **Protected Resource** | Mechanically Mineable Trona Area (MMTA) |
| **RMP Affected Area** | MMTA 144,409 acres |
| **Stipulation** | Closed |

| Description | Proposed RMP |
|---|---|
| **Action Text** | Continue to suspend existing oil and gas leases from development within the Mechanically MMTA.<br>Close the MMTA (MMTA federal 141,409 acres) for new fluid mineral leasing until the oil and gas resource can be recovered without compromising the safety of the underground miners. |
| **Stipulation Description** | **Stipulation: None** |
| **Management #** | 2215 |
| **Protected Resource** | JMH Area 2. |
| **RMP Affected Area** | Map 3-20 |
| **Stipulation** | CSU |
| **Action Text** | Area 2 is open to leasing considering such factors as operational need, resource recovery, geology, and ability to mitigate impacts and with stipulations applied to protect sensitive resources in Area 2 (Table 2-4, Appendix V).<br>CSU for fluid minerals.<br>The BLM may request potential lessees to share data (such as reservoir data or geologic data) or plans related to the development of the potential oil and gas resource prior to leasing; sharing of these data is voluntary. |
| **Stipulation Description** | **Stipulation:** Before surface disturbing activities are conducted the operator provide the Authorized Officer a plan to protect sensitive resources within the area.<br>**Purpose:** To protect the sensitive resources in Area 2.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area in not within Area 2. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 2217 |
| **Protected Resource** | Jack Morrow Hills (JMH) Area 3. |
| **RMP Affected Area** | 35,500 acres |
| **Stipulation** | None |
| **Action Text** | Close approximately 35,500 acres along the perimeter of JMH Area 3 to fluid mineral leasing. This acreage represents a distance of ½ mile within portions of the boundary of Area 3. |

| Description | Proposed RMP |
|---|---|
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 2218 |
| **Protected Resource** | JHM Area 3. |
| **RMP Affected Area** | Map 3-20 |
| **Stipulation** | Closed |
| **Action Text** | Close JMH Area 3 to fluid mineral leasing (about 92,000 acres).<br>As existing leases expire in Area 3, they would not be reoffered for lease (Table 2-4, Appendix V), including the perimeter of Area 3 identified above. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 4421 |
| **Protected Resource** | Big game crucial winter range and parturition areas. |
| **RMP Affected Area** | Map 3-3 |
| **Stipulation** | TLS |
| **Action Text** | Allow surface-disturbing activities on big game crucial winter ranges and parturition areas (see Map 3-3) subject to adequate mitigation of impacts following BLM mitigation policies. Avoid disruptive activities in big game crucial winter range between November 15 and April 30.<br>Avoid disruptive activities in big game parturition areas between May 1 and June 30.<br>Grant exceptions if impacts could be mitigated in accordance with exception criteria (see specific exception/waiver/modification criteria, Appendix B).<br>Determine and apply mitigation of impacts (e.g., noise and traffic) on all habitats and habitat functionality. |
| **Stipulation Description** | **Stipulation:** No disruptive activities will be allowed in big game crucial winter range between November 15 and April 30.<br>**Stipulation:** No disruptive activities will be allowed in big game parturition areas between May 1 and June 30.<br>**Purpose:** To protect big game winter range and parturition areas from activities that would adversely harm them during winter months and in breading season.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above. Exception requests will be reviewed in consultation with the WGFD.<br>**Modification:** The AO may modify the area subject to the stipulations based upon a BLM evaluation in coordination with the WGFD and/or USFWS, as necessary. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards. |

| Description | Proposed RMP |
|---|---|
| | **Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation of the area in coordination with the WGFD and/or USFWS, as necessary. |
| **Management #** | 4424 |
| **Protected Resource** | Big game migration corridors. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | CSU |
| **Action Text** | Allow fluid mineral surface occupancy and use within WGFD designated big game migration corridors if the fluid mineral operator and the BLM arrive at an acceptable conservation plan for avoidance, minimization, rectification, and/or restoration within the migration corridor. The purpose of the conservation plan is to ensure that fluid mineral development activities are pursued in a manner that maintain habitat function and result in no significant declines in species distribution or abundance. The BLM will consult with the WGFD to evaluate the adequacy of the conservation plan prior to finalization.<br>CSU for fluid minerals. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities unless the operator and BLM arrive at an acceptable migration corridor conservation plan for avoidance, minimization, rectification, and/or restoration is required prior to the approval for surface occupancy or use within a designated big game migration corridor. The purpose of the conservation plan is to ensure that development activities are completed in a manner that is compatible with maintaining designated big game migration corridor functionality (i.e., unimpeded big game movement and use within the corridor).<br>**Purpose:** To protect big game migration corridors to ensure that development activities do not affect their functionality.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** None<br>**Waiver:** None |
| **Management #** | 4430 |
| **Protected Resource** | Raptor nests. |
| **RMP Affected Area** | One-mile radius of raptor nests per BLM Map 3-4 |
| **Stipulation** | CSU |
| **Action Text** | Allow surface occupancy within the identified buffer of occupied and historic raptor nests, subject to adequate mitigation of impacts following BLM mitigation policies. This includes project components such as permanent and/or high-profile structures (e.g., buildings, storage tanks, powerlines, roads, well pads):<br>• Ferruginous hawk – ½ mile |

| Description | Proposed RMP |
|---|---|
| | • Bald eagle – 1 mile<br>• Golden eagle – ¼ mile<br>• Burrowing owl – ¼ mile<br>• General raptor – ¼ mile<br>CSU for fluid minerals.<br>Modify buffer recommendations, on a site-specific or project-specific basis, based on field observations and local conditions.<br>Require implementation of USFWS recommendations to locate structures away from high avian-use areas such as those used for nesting, foraging, roosting or migrating, and the travel between high-use areas on infrastructure (or facilities) that have potential to cause direct avian mortality (e.g., wind turbines, guyed towers, airports, wastewater disposal facilities, or transmission lines). |
| **Stipulation Description** | **Stipulation:** Restrict surface occupancy or use unless the operator submits a plan that adequately addresses mitigation of impacts following the BLM mitigation policy for raptor nests within a 1-mile radius.<br>**Purpose:** To protect nesting raptors during critical breeding periods.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above. The determination may include consultation with the WGFD or USFWS.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards. The determination may include consultation with the WGFD or USFWS.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. The determination may include consultation with the WGFD or USFWS. |
| **Management #** | 4431 |
| **Protected Resource** | Raptor nests. |
| **RMP Affected Area** | One-mile radius of raptor nests, per BLM Map 3-4 |
| **Stipulation** | TLS |
| **Action Text** | Avoid surface-disturbing and disruptive activities seasonally within the identified buffer of occupied and historic raptor nest sites (see Appendix J). |
| **Stipulation Description** | **Stipulation:** No surface occupancy or disturbing activities within 1-mile radius during raptor seasonal restrictions (generally February 1 to August 15) unless the operator submits a plan that adequately addresses mitigation of impacts following the BLM mitigation policy to raptor nests.<br>**Purpose:** To protect nesting raptors during critical breeding period. |

| Description | Proposed RMP |
|---|---|
| | **Exception:** The AO may grant an exception if the operator demonstrates that there are no active nests during the period of concern, subject to confirmation by the BLM in coordination with the WGFD and/or USFWS, as necessary.<br><br>**Modification:** The BLM AO may modify the area subject to the stipulations based upon a BLM evaluation in coordination with the WGFD and/or USFWS, as necessary.<br><br>The stipulation may be modified based on monitoring results; or if it is determined that the action will not impair the function or the suitability of the habitat, or cause nest abandonment.<br><br>**Waiver:** The stipulation may be waived if the BLM AO determines that the entire lease area does not include seasonal buffer zones for nests of raptor species of conservation concern. This determination shall be based upon field studies of the area by a qualified representative and subject to confirmation from BLM, in coordination with the WGFD and/or USFWS, as necessary. |
| **Management #** | 4435 |
| **Protected Resource** | Game fish and Special Status fish populations during spawning season. |
| **RMP Affected Area** | Fish-bearing streams. |
| **Stipulation** | TLS |
| **Action Text** | Avoid surface-disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, power-lines, roads, recreation sites, fences, wells) within the 100-year floodplains that could adversely affect fish-bearing streams.<br><br>Allow linear crossings in these areas on a case-by-case basis only if the BLM determines that no adverse impacts would likely occur and a plan to mitigate potential impacts on water quality and fish habitat is approved.<br><br>Avoid surface-disturbing activities within fish-bearing streams to protect spawning habitat, egg incubation, and fry from March 15 to July 31 and fall TLS from September 15 to November 30. Critical dates often vary based on site location and species composition.<br><br>Evaluate requests for exceptions to timing limitations and consider reducing or increasing these standard dates (see Appendix B for specific exception/waiver/ modification criteria). Consult with the WGFD on evaluations of requests. |
| **Stipulation Description** | **Stipulation:** No surface disturbing activities within fish-bearing stream from March 15 to July 31 and from September 15 to November 30.<br><br>**Purpose:** To protect spawning activities and egg incubation of fish during reproductive periods.<br><br>**Exception:** The AO may grant an exception if the operator demonstrates that spawning habitat is not occupied during the period of concern, subject to confirmation by the BLM in coordination with WGFD as appropriate; or if it is determined that the action will not impair the function or the suitability of the habitat.<br><br>**Modification:** The BLM AO may modify the area subject to the stipulations based upon a determination by the BLM in coordination with WGFD, as appropriate, that the lease area does not contain fish-bearing streams or suitable fish spawning habitat or fish passage compatible stream segments. |

| Description | Proposed RMP |
|---|---|
| | **Waiver**: The AO may grant a waiver if it is determined that the entire lease area does not contain fish-bearing streams or suitable fish spawning habitat or fish passage compatible stream segments. This determination shall be based upon a BLM evaluation in coordination with the WGFD, as appropriate. |
| **Management #** | 4602 |
| **Protected Resource** | Special Status plant species. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | NSO |
| **Action Text** | Prohibit surface-disturbing activities or any disruptive activity within 100 feet of the boundary of known locations of Special Status plant species.<br>NSO for fluid minerals.<br>Petition to segregate and pursue a withdrawal from locatable mineral entry.<br>Close to mineral material sales.<br>Close to solid mineral leasing.<br>Designate as a ROW avoidance area.<br>Close to all OHV use, including those vehicles used for geophysical exploration activities, surveying, etc.<br>Prohibit the use of explosives and blasting. |
| **Stipulation Description** | **Stipulation:** No surface occupancy or use within 100 feet of any Special Status plant species.<br>**Purpose:** To protect Special Status plants from activities that could adversely affect the plants or their habitat.<br>**Exception:** The BLM AO can approve exceptions where applicants could demonstrate that proposed activities would not impact sensitive plant species.<br>**Modification:** The AO may modify the boundaries of the stipulation area if a portion of the area is not being used by the identified species.<br>**Waiver:** This stipulation may be waived if the AO determines that the entire leasehold does not contain any Special Status plant species. |
| **Management #** | 4610 |
| **Protected Resource** | Special status plant species. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | CSU |

| Description | Proposed RMP |
|---|---|
| **Action Text** | Allow surface-disturbing activities in Special Status plant species' mapped habitat, subject to adequate mitigation of impacts following BLM mitigation policies.<br>1) CSU for fluid minerals<br>2) Designate as a ROW avoidance area |
| **Stipulation Description** | **Stipulation:** Restrict surface disturbing activities unless the operator submits a plan that adequately addresses mitigation of impacts following the BLM mitigation policies for Special Status plant species.<br>**Purpose:** To protect Special Status plants from activities that could adversely affect the plants or their habitat.<br>**Exception:** The BLM AO can approve exceptions where applicants could demonstrate that proposed activities would not impact sensitive plant species.<br>**Modification:** The AO may modify the boundaries of the stipulation area if: (1) a portion of the area is not being used by the identified species as determined by survey; (2) habitat outside of stipulation boundaries is being used and needs to be protected.<br>**Waiver:** This stipulation may be waived if the AO determines that the entire leasehold can be occupied without adversely affecting the resources. |
| **Management #** | 4613 |
| **Protected Resource** | Big sagebrush/lemon scurfpea. |
| **RMP Affected Area** | Base of Steamboat Mountain. |
| **Stipulation** | CSU |
| **Action Text** | Protect some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain by controlling surface use or implementing other intense mitigation to preserve the character of vegetation communities. |
| **Stipulation Description** | **Stipulation:** Restrict surface occupancy or use unless the operator submits a plan that adequately address mitigation of impacts following the BLM mitigation policies for big sagebrush/lemon scurfpea.<br>**Exception:** None<br>**Modification:** None<br>**Waiver:** None |
| **Management #** | 4614 |
| **Protected Resource** | Little Firehole's Cottonwood Canyon Area. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |

| Description | Proposed RMP |
|---|---|
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 4623 |
| **Protected Resource** | Mountain plover nesting habitat. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | TLS |
| **Action Text** | Require mountain plover surveys prior to permitting surface-disturbing or disruptive activities in plover nesting habitat if the activities would occur during the mountain plover nesting season (April 10 to July 10). If active nests are located, no surface-disturbing or disruptive activities would be allowed within ¼ mile until the end of the nesting season.<br>Survey protocol would be conducted by a qualified biologist and follow best available science and methods as determined by the Rock Springs BLM Biologist. |
| **Stipulation Description** | **Stipulation:** No surface disturbing or disruptive activities in area of mountain plover nesting habitat until a survey is conducted by a qualified biologist and a plan following best available science is summited to the AO that will protect the area during nesting season (April 10 to July 10).<br>**Purpose:** To protect mountain plover nesting habitat during nesting season (April 10 to July 10).<br>**Exception:** An exception to this restriction or stipulation may be granted by the AO if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be adequately mitigated.<br>**Modification:** The AO may modify the area subject to the stipulations based upon a BLM evaluation in coordination with the WGFD and/or USFWS, as necessary. The stipulation may be modified based on monitoring results, or if it is determined that the action will not impair the function or the suitability of the habitat, or cause nest abandonment.<br>**Waiver**: The AO may grant a waiver if it is determined that the entire lease area does not contain suitable mountain plover habitat. This determination shall be based upon a BLM evaluation of the area in coordination with the WGFD and/or USFWS, as necessary. |
| **Management #** | 4624 |
| **Protected Resource** | Fish-bearing streams to protect spawning, egg incubation, and fry areas in Special Status fish-bearing streams. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action (see general fish management in the Fish and Wildlife Section) |
| **Stipulation Description** | **Stipulation:** None |

| Description | Proposed RMP |
|---|---|
| **Management #** | 5008 |
| **Protected Resource** | To protect steatite/soapstone sites. |
| **RMP Affected Area** | -- |
| **Stipulation** | None |
| **Action Text** | Manage the prehistoric quarry sites (48SU1263, 0.11 acre and 48SU7632, 0.66 acre) to emphasize scientific information.<br>Petition to segregate and pursue a withdrawal from locatable mineral entry.<br>Allow only those activities related to scientific investigation.<br>Because prehistoric steatite/soapstone quarries are relatively rare and have been identified as a sensitive cultural resource during tribal consultation, projects proposed in the vicinity of steatite outcrops would require additional fieldwork and research, including tribal consultation, to determine if the outcrop is important to tribes and/or contains important scientific information. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 5012 |
| **Protected Resource** | NRHP sites. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | CSU |
| **Action Text** | Avoid surface-disturbing activities, including geophysical activities, on sites eligible for inclusion in the NRHP under Criterion D (because of their scientific information content) by at least 100 feet.<br>This avoidance distance could be appropriate for sites eligible for the NRHP under other criteria and would be determined on a case-by-case basis. Develop appropriate mitigation measures if a site cannot be avoided. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities within 100 feet of any site that is eligible for inclusion in the NRHP under Criterion D unless the operator provides an appropriate mitigation plan approved by the AO.<br>**Purpose:** To protect the scientific value of these NRHP sites.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area does not include sites eligible under Criterion D. This determination shall be based upon BLM evaluation or environmental record of review. |

| Description | Proposed RMP |
|---|---|
| **Management #** | 5100 |
| **Protected Resource** | Rock art sites at Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain. |
| **RMP Affected Area** | Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain. |
| **Stipulation** | NSO, CSU |
| **Action Text** | Manage significant rock art sites (including both prehistoric and historic inscriptions) and their surrounding setting within ½ mile to protect Native American, cultural and historical values. These include:<br>1) Cedar Canyon - 21.7 acres<br>2) LaBarge Bluffs - 5 acres<br>3) Sugarloaf - 2.3 acres<br>4) Tolar - 8.3 acres<br>5) White Mountain - 21.6 acres<br>**The rock art site (excluding the ½ mile setting)**:<br>1) Prohibit surface occupancy<br>2) NSO for fluid minerals<br>3) Close to mineral material sales/disposal<br>4) Maintain existing withdrawals (Sugarloaf petroglyphs [5 acres] and White Mountain [20 acres]) and pursue new withdrawals for mineral location<br>5) Designate as a ROW exclusion area<br>6) Allow subsurface mining only if a site-specific analysis determines no adverse effects will occur<br>7) Designate as visual resource management (VRM) Class II<br>**Setting (within ½ mile of site)**:<br>Allow surface-disturbing activities and visual, audible, and atmospheric intrusions only if they do not adversely affect Native American, cultural, or historical values.<br>1) CSU for fluid minerals<br>2) Designate as VRM Class II |
| **Stipulation Description** | **Stipulation: NSO:** No surface occupancy or use within the White Mountain, Cedar Canyon, Tolar, La Barge, and Sugarloaf rock art sites.<br>**Purpose:** To protect significant rock art sites.<br>**Exception:** None |

| Description | Proposed RMP |
|---|---|
| | **Modification:** None<br>**Waiver:** None<br>Viewshed<br>**CSU**: Standard Lease Stipulation 1.<br>**Purpose:** To protect significant rock art sites.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area is not within a rock art site or its viewshed. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 5109 |
| **Protected Resource** | Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex as historic districts. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 5112 and 5113 |
| **Protected Resource** | Known human burial sites. |
| **RMP Affected Area** | -- |
| **Stipulation** | NSO |
| **Action Text** | Close all known human burial sites, regardless of their ethnic affiliation, to surface disturbing activities that could adversely affect the sites.<br>Manage as:<br>1) NSO for fluid minerals<br>2) Close to mineral material sales/disposal<br>3) Designate an exclusion area for all new ROW<br>Consult with appropriate tribes regarding management of Native American burial sites. |

| Description | Proposed RMP |
|---|---|
| | Excavation/data recovery would not be the preferred method for mitigation of adverse effects on any burial location. |
| **Stipulation Description** | **Stipulation:** No surface occupancy would be allowed within known human burial sites.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area does not include human burials. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 5114 |
| **Protected Resource** | Boyer Ranch House and Dug Springs Stage. |
| **RMP Affected Area** | Boyer Ranch (10 acres) and Dug Springs Stage Station (10 acres). |
| **Stipulation** | CSU |
| **Action Text** | Allow surface-disturbing activities at the Boyer Ranch House (formerly LaClede Stage Station) (10 acres) and Dug Springs Stage Station (10 acres) on the Overland Trail or their setting only if they do not adversely affect the cultural values of the sites.<br>CSU for fluid minerals.<br>Petition to segregate and pursue withdrawal from mineral location. |
| **Stipulation Description** | **Stipulation:** Surface occupancy or use may be restricted or prohibited within the site of the Dug Springs Stage Station and Boyer Ranch House.<br>**Purpose:** To protect the cultural values of the Boyer Ranch House and the Dug Springs Stage Station.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area does not include either of the sites listed above. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 5116 |
| **Protected Resource** | Crookston Ranch. |
| **RMP Affected Area** | 40 acres |
| **Stipulation** | NSO |
| **Action Text** | The Crookston Ranch site, approximately 40 acres. |

| Description | Proposed RMP |
|---|---|
| | NSO for fluid minerals.<br>Petition to segregate and pursue withdrawal from mineral location.<br>Close to mineral material sales.<br>Close to solid mineral leasing.<br>Designate as a ROW exclusion area.<br>Prohibit geophysical activities such as shothole, blasting, and vibroseis locations within ¼ mile from the site.<br>Allow geophysical activities outside of ¼ mile only after a site specific analysis determines that visual intrusions and adverse effects would not occur.<br>Allow non-mineral development surface disturbing activities at the site and within ½ mile of the site, only if they do not adversely affect the cultural values of the site. |
| **Stipulation Description** | **Stipulation: NSO**: No surface occupancy within the 40 acres of the Crookston Ranch site.<br>**Exception:** None<br>**Modification:** None<br>**Waiver:** None |
| **Management #** | 5202 |
| **Protected Resource** | Indian Gap Area inside Steamboat Mountain ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 5305 |
| **Protected Resource** | Adobe Town and Desolation Flats/Desolation Point areas. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |

| Description | Proposed RMP |
|---|---|
| **Management #** | 5308 |
| **Protected Resource** | Farson Fossil Fish Beds. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | CSU |
| **Action Text** | Allow surface-disturbing activities on a case-by-case basis in the Farson Fossil Fish Beds (see Map 2-10), subject to adequate mitigation of impacts following BLM mitigation policies.<br>Designate as a ROW avoidance area.<br>The BLM (or BLM paleontological staff) may write and implement a site protection plan for the Farson Fossil Fish Beds and other significant fossil localities as they are identified. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities in the area of the Farson Fossil Fish Beds unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated adverse impacts.<br>**Purpose:** To protect the paleontological values of the Farson Fossil Fish Beds.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area is not within the Farson Fossil Fish Beds. This determination shall be based upon a BLM evaluation or environmental record of review. |
| **Management #** | 6516 |
| **Protected Resource** | Developed recreation sites. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | NSO |
| **Action Text** | Allow surface-disturbing activities within ¼ mile of developed recreation sites on a case-by-case basis, only if they do not adversely affect recreational uses and objectives for the area.<br>Manage as an NSO for fluid minerals. |
| **Stipulation Description** | **Stipulation:** Prohibit surface occupancy within ¼ mile of developed recreation sites until an operator submits to the AO a plan that demonstrates will not adversely affect recreational uses for the area.<br>**Purpose:** To protect the recreation sites so they are not adversely affected.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above. |

| Description | Proposed RMP |
|---|---|
| | **Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 6523 |
| **Protected Resource** | The Continental Divide Snowmobile Trail and South Pass Cross Country Ski Trail. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | NSO |
| **Action Text** | The integrity of the Continental Divide Snowmobile Trail and the South Pass Cross Country Ski Trail would be maintained by limiting (and in some cases precluding) surface-disturbing activities or facilities on or within ¼ mile of the trails. The only exceptions would be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety. |
| **Stipulation Description** | **Stipulation:** Restrict surface disturbing activities within ¼ mile of the Continental Divide Snowmobile Trail unless the operator can submit a plan that demonstrates that impact from the proposed action can be fully mitigated or activities be shown to benefit the resource objectives.<br>**Purpose:** To protect the Continental Divide Snowmobile Trail and South Pass Cross Country Ski Trail.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 6525 |
| **Protected Resource** | Continental Divide National Scenic Trail (CDNST) and Connecting Side Trail consistent with the National Direction for the CDNST. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action; see the Congressionally Designated Trails Section (7000-7022) |

| Description | Proposed RMP |
|---|---|
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 6534 |
| **Protected Resource** | Killpecker Sand Dunes Special Management Area. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | Closed |
| **Action Text** | Allow surface disturbing activities only if the purpose of the activity is to benefit the resource objectives.<br>1. Petition to segregate and pursue withdrawal from mineral location.<br>2. Close to mineral material sales.<br>3. Prohibit geophysical activities such as shothole, blasting, and vibroseis locations.<br>4. Closed to fluid minerals.<br>5. Closed to Oil Shale. |
| **Stipulation Description** | **Stipulation:** Prohibit surface occupancy or use within the Killpecker Sand Dunes Special Management Area unless a plan is submitted by the operator to the AO that shows that the activities do not adversity affect the resource objectives.<br>**Purpose:** To protect the resource objectives of the Killpecker Sand Dunes Special Management Area.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 6538 |
| **Protected Resource** | The Oregon and Mormon Pioneer National Historic Trails Special Recreation Management Area. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | None |
| **Action Text** | No similar action. The Oregon and Mormon Pioneer National Historic Trails Special Recreation Management Area would not be retained. |
| **Stipulation Description** | **Stipulation:** None |

| Description | Proposed RMP |
|---|---|
| **Management #** | 6547 |
| **Protected Resource** | Wind River Front SRMA Eastern Unit. |
| **RMP Affected Area** | 82,107 acres |
| **Stipulation** | Closed |
| **Action Text** | This unit of the SRMA is closed to mineral leasing. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 6553 |
| **Protected Resource** | 1 ½ mile of the Big Sandy River. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7003 |
| **Protected Resource** | National Historic Trails. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | CSU |
| **Action Text** | Apply the following actions within the National Trail Management Corridor:<br>• National Trail Management Corridor is a CSU for fluid minerals.<br>• The area within ¼ mile on either side of a NHT will be closed to Oil Shale.<br>• Surface disturbing activities will be prohibited if the project causes more than a weak contrast (VRM) to the setting of the National Historic and Scenic Trails.<br>• Designate as a ROW avoidance area.<br>• Allow new ROWs if it is determined by the AO that impacts associated with the action will not cause an adverse effect to the National Historic and Scenic Trails.<br>• Allow mineral material disposals if it is determined by the AO that impacts associated with the action will not cause an adverse effect to the National Historic and Scenic Trails. |

| Description | Proposed RMP |
|---|---|
| | • Allow new surface disturbing activities only if they will not cause an adverse effect to the National Historic and Scenic Trails. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities within the National Trails Management Corridor if the project will cause an adverse effect or cause more than a weak contrast to the setting of the NHT.<br>**Purpose:** To protect the National Historic Trails and their setting.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area is not within the National Trails Management Corridor. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7013 |
| **Protected Resource** | Parting-of-the-Ways historical site. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | NSO |
| **Action Text** | Prohibit surface-disturbing activities in the Parting-of-the-Ways historical site that would adversely affect it.<br>Retain the existing 40-acre mineral withdrawal.<br>NSO for fluid minerals. |
| **Stipulation Description** | **Stipulation:** Surface occupancy and use will be prohibited at the Parting-of-the-Ways historical site.<br>**Purpose:** To protect the Parting-of-the-Ways historical site.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area is not within the Parting-of-the-Ways historical site. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7017 |
| **Protected Resource** | Historic roads and trails that are eligible for the NRHP but not congressionally designated. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | NSO |

| Description | Proposed RMP |
|---|---|
| **Action Text** | Historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include but are not limited to the Point of Rocks to South Pass Road and other Expansion Era roads and trails) will be managed according to their historical context as follows.<br>Actions within 500 feet of a contributing segment of road or trail:<br>1) NSO for fluid minerals.<br>2) Designate as a ROW avoidance area.<br>For most projects, the setting will be analyzed out to 1 mile on either side of contributing segments of the historic roads and trails.<br>For highly visible projects, impacts on setting will be analyzed on a case-by-case basis.<br>Should any roads or trails be congressionally designated as part of the NHT system, they would be managed according to the prescriptions set forth in the National Historic Trails section. |
| **Stipulation Description** | **Stipulation:** Prohibit surface occupancy within 500 feet of a contributing segment of a road or trail.<br>**Purpose:** To protect contributing segments of historic roads or trails.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire area is not within 500 feet of a contributing road or trail segment. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7021 |
| **Protected Resource** | Historic roads and trails that are eligible for the NRHP but not congressionally designated. |
| **RMP Affected Area** | Map 3-7 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Management #** | 7203 |
| **Protected Resource** | Wild and Scenic Rivers |
| **RMP Affected Area** | Map 3-1 |
| **Stipulation** | CSU |
| **Action Text** | All Classifications |

| Description | Proposed RMP |
|---|---|
| | Within ½ mile of either side of the river bank:<br>Designate as a ROW exclusion area.<br>Manage surface-disturbing activities to maintain the wild and scenic rivers.<br>CSU for fluid minerals.<br>Close to mineral material sales.<br>Retain the existing withdrawal from mineral location. |
| **Stipulation Description** | **Stipulation:** No surface-disturbing activities ½ mile of either side of river bank, unless operator can provide a plan to the AO that protects the wild and scenic values of the river.<br>**Purpose:** To protect the wild and scenic values of the rivers.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area is not within the Wild and Scenic Rivers area. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7307 |
| **Protected Resource** | Red Desert Watershed Management Area. |
| **RMP Affected Area** | Map 3-1 |
| **Stipulation** | CSU |
| **Action Text** | No similar action; the Red Desert Watershed Management Area would not be retained. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7313 |
| **Protected Resource** | Pine Mountain Management Area. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | None |
| **Action Text** | The Pine Mountain area would be managed as an avoidance area for ROW and surface-disturbing activities. |
| **Stipulation Description** | **Stipulation:** None |

| Description | Proposed RMP |
|---|---|
| **Management #** | 7314 |
| **Protected Resource** | Unique resources. |
| **RMP Affected Area** | Pine Mountain Management Area. |
| **Stipulation** | None |
| **Action Text** | No similar action (see management action 0013 for application of mitigation measures). |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7325 |
| **Protected Resource** | Four J Basin Portion of the Pine Mountain Management Area. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | None |
| **Action Text** | No similar action |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7331 |
| **Protected Resource** | Sugarloaf Basin. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | CSU |
| **Action Text** | Allow surface-disturbing activities if the operator and the BLM arrive at an acceptable plan for avoidance, minimization, rectification, and/or restoration within the Sugarloaf Basin area. The purpose of the plan is to ensure that fluid mineral development activities are pursued in a manner that maintain habitat function and result in no significant declines in species distribution or abundance. The BLM will consult with the WGFD to evaluate the adequacy of the conservation plan prior to finalization. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities unless the operator and BLM arrive at an acceptable conservation plan for avoidance, minimization, rectification, and/or restoration, which is required prior to the approval for surface occupancy or use within the Sugarloaf Basin area. The purpose of the plan is to ensure that development activities are completed in a manner that is compatible with maintaining sensitive resources that occur within the area.<br>**Purpose:** To protect sensitive resources to ensure that development activities do not affect their functionality.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above. |

| Description | Proposed RMP |
|---|---|
| | **Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7333 |
| **Protected Resource** | Sugarloaf Basin. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | CSU |
| **Action Text** | Management of habitat or Special Status species, if identified, would be developed on a case-by-case basis.<br>Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas would apply (see Wildlife section and Appendix J). Exceptions to this restriction may be approved if conditions and criteria described in Appendix B. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities in the Sugarloaf Basin unless the operator can provide a plan to the AO that shows that the impacts from the proposed action are acceptable and can be adequately mitigated.<br>**Purpose:** To protect the resource values of the Sugarloaf Basin.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7337 |
| **Protected Resource** | The Pinnacles Geographic Area. |
| **RMP Affected Area** | 8,950 acres |
| **Stipulation** | NSO |
| **Action Text** | Manage as: (1) closed to mineral material sales/disposal; (2) exclusion area for ROW.<br>Pursue withdrawal from mineral location. |

| Description | Proposed RMP |
|---|---|
| | Limit surface disturbing activities to actions that would preserve or enhance the values of the area. |
| **Stipulation Description** | **Stipulation:** Prohibit surface occupancy and use in the Pinnacles Geologic Area.<br>**Purpose:** To protect the resource values of the Pinnacles Geologic Area.<br>**Exception:** None<br>**Modification:** None<br>**Waiver:** None |
| **Management #** | 7338 |
| **Protected Resource** | Pinnacles Geologic Feature. |
| **RMP Affected Area** | 1,345 acres |
| **Stipulation** | None |
| **Action Text** | Manage the Pinnacles Geologic Feature as a portion of the Pinnacles ACEC (Table 2-12 and Map 2-39). |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7341 |
| **Protected Resource** | Monument Valley Management Area. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | None |
| **Action Text** | No similar action; the Monument Valley Management Area would not be retained. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7415 |
| **Protected Resource** | Rock art sites. |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action (see Cultural, Wildlife and Fisheries sections) |
| **Stipulation Description** | **Stipulation:** None |

| Description | Proposed RMP |
|---|---|
| **Management #** | 7456 and 7457 |
| **Protected Resource** | Boars Tusk Area. |
| **RMP Affected Area** | 1400 acres |
| **Stipulation** | None |
| **Action Text** | Designate the Boars Tusk ACEC an exclusion area for ROW. Close the area to mineral location, mineral material sales, and leasable minerals. Pursue a withdrawal from entry under land laws and mineral location.<br>Limit surface-disturbing activities to actions that would preserve or enhance the values of the area. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7466 |
| **Protected Resource** | Crucial big game winter ranges, big game birthing areas. |
| **RMP Affected Area** | Map 3-3 |
| **Stipulation** | TLS |
| **Action Text** | Restrict surface-disturbing activities, geophysical activities, and oil and gas exploration and development activities seasonally on crucial big game winter ranges, big game birthing areas, and winter concentration areas. Grant no exceptions, waivers. or modifications. |
| **Stipulation Description** | **Stipulation:** No surface occupancy or use is allowed in big game winter range, big game birthing areas, and winter concentration areas. During timing restrictions based on the area and wildlife species.<br>**Exception:** None<br>**Modification:** None<br>**Waiver:** None |
| **Management #** | 7478 |
| **Protected Resource** | Natural Corrals ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | None |
| **Action Text** | The ACEC would be closed to consideration of fluid mineral exploration and development. |
| **Stipulation Description** | **Stipulation:** None |

| Description | Proposed RMP |
|---|---|
| **Management #** | 7492 |
| **Protected Resource** | Pine Springs ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | Closed |
| **Action Text** | Designate the ACEC an exclusion area for: (1) surface-disturbing activities that could adversely affect resource values or preclude meeting ACEC management objectives; (2) ROW.<br>Pursue a withdrawal from mineral location and entry under the U.S. mining laws.<br>Close the area to: (1) mineral material sales for sand, gravel, or other types of construction or building materials; (2) mineral leasing.<br>Retain and petition to extend the withdrawal when it expires.<br>Write cultural resource management plans for the site. Allow interpretive and visitor management efforts as necessary. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7502 |
| **Protected Resource** | South Pass Historic Landscape ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | CSU |
| **Action Text** | The portion of the ACEC that is visible from the NHT and NST:<br>Allow surface occupancy and disturbance only if the project causes no more than a weak contrast to the setting of the trails and does not cause an adverse effect on the trails, NHL, or ACEC values.<br>CSU for fluid minerals. |
| **Stipulation Description** | **Stipulation:** Restrict surface-disturbing activities within the South Pass Historic Landscape ACEC if the project is visible and will cause an adverse effect or cause more than a weak contrast to the setting of the NHT.<br>**Purpose:** To protect the National Historic Trails and their setting.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.<br>**Waiver:** The BLM AO determines that the entire lease area is not within the ACEC. This determination shall be based upon BLM evaluation or environmental record of review. |

| Description | Proposed RMP |
|---|---|
| **Management #** | 7510 |
| **Protected Resource** | Special Status Plant Species ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | NSO |
| **Action Text** | Prohibit surface disturbing activities.<br>1) NSO for fluid minerals<br>2) Segregate and pursue a withdrawal from locatable mineral entry<br>3) Close to mineral material sales<br>4) Close to solid mineral leasing<br>5) Designate as a ROW exclusion area<br>6) Prohibit the use of explosives and blasting<br>Retain existing withdrawals for the following plant species: Small rockcress (*Arabis pusilla*) (1,020 acres) and Uinta greenthread, (*Thelesperma pubescens*) (3,646 acres). |
| **Stipulation Description** | **Stipulation:** Prohibit surface occupancy and use within the Special Status Plant Species ACEC.<br>**Purpose:** To protect Special Status plants from activities that could adversely affect the plants or their habitat.<br>**Exception:** The BLM AO may grant an exception if it is determined that the action will not result in a failure to meet the performance standards above.<br>**Modification:** The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review. The stipulation and performance standards identified above may be modified based on monitoring results from similar actions on similar sites or revisions to national or state performance standards.<br>**Waiver:** The BLM AO determines that the entire lease area does not include limited reclamation potential areas. This determination shall be based upon BLM evaluation or environmental record of review. |
| **Management #** | 7519 |
| **Protected Resource** | Steamboat Mountain ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | NSO |
| **Action Text** | Designate the ACEC an exclusion area for direct surface-disturbing activities or any disrupting activities (e.g., off-site dust, air pollutants) that could adversely affect the Special Status plant species and their habitat. |

| Description | Proposed RMP |
|---|---|
| | Pursue a withdrawal from mineral location and entry under the land laws. Stipulate no surface occupancy and surface disturbing activities for leasable mineral exploration and development activities or construction of long-term placement of facilities or structures. Close to mineral material sales and use of explosives and blasting. |
| **Stipulation Description** | **Stipulation:** No surface-disturbing activities are allowed that could adversely affect the Special Status plant species and their habitat.<br>**Purpose:** To protect the Special Status plant species in the Steamboat Mountain ACEC.<br>**Exception:** None<br>**Modification:** None<br>**Waiver:** None |
| **Management #** | 7539 |
| **Protected Resource** | South Wind River ACEC. |
| **RMP Affected Area** | Map 2-39 |
| **Stipulation** | NSO |
| **Action Text** | No similar action. Management of this area is addressed through management of the National Trails Corridor. |
| **Stipulation Description** | **Stipulation:** None |
| **Management #** | 7559 |
| **Protected Resource** | Big Game Migration Corridor |
| **RMP Affected Area** | Map 2-10 |
| **Stipulation** | None |
| **Action Text** | No similar action; the Big Game Migration Corridor would not be designated as an ACEC. |
| **Stipulation Description** | **Stipulation:** None |

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# APPENDIX C—AREAS OF CRITICAL ENVIRONMENTAL CONCERN EVALUATION

# INTRODUCTION

As part of the process for developing the Rock Springs Resource Management Plan (RMP), the Bureau of Land Management (BLM) planning team members reviewed all BLM administered public lands in the planning area to determine if any areas should be considered for designation as areas of critical environmental concern (ACEC) or if any existing ACEC designations should be modified or terminated. Only BLM-administered public lands can be considered for ACEC designation.

ACECs are BLM lands where special management attention is needed to protect important and relevant values. Special management attention refers to management prescriptions developed during preparation of an RMP or amendment expressly to protect the important and relevant values of an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP (BLM Manual 1613).

To be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in 43 Code of Federal Regulations (CFR) 1610.7-2 and BLM Manual 1613. If the relevance and importance criteria are met, an area must be identified as a potential ACEC and considered for designation and management in the resource planning process. Designation is based on whether a potential ACEC requires special management attention in the selected plan alternative.

Relevance and importance are defined as follows:

- **Relevance**. There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.
- **Importance**. The above described value, resource, system, process, or hazard shall have substantial significance and values. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to life or property.

An area meets the "relevance" criterion if it contains one or more of the following:

1. A significant historic, cultural, paleontological, or scenic value (including but not limited to rare or sensitive archaeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species; or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered, nonsensitive, or threatened plan species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

An area meets the "importance" criterion if it further meets one or more of the following:

1. Has more than locally significant qualities, which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared with any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.

3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Policy and Management Act (FLPMA).
4. Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

This report presents the completed evaluation forms for the nominated ACECs in the planning area. An ACEC that meets both relevance and importance criteria can be included in at least one management alternative analyzed in the RMP and environmental impact statement.

The rationale for designating or not designating ACECs is provided in the Final Environmental Impact Statement (EIS).

# C.1 CEDAR CANYON ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **Cedar Canyon** |
| **General Location** | T 22 N R 103 W sec 6, 8, 10, 16 and 18 |
| **General Description** | Native American rock art panels |
| **Public Land Acres** | 2,537 |
| **Values Considered** | Cultural resources: prehistoric rock art sites. Wildlife: raptor nesting and big game crucial winter range. |

**History**: This area was reviewed in the Green River RMP and found to meet relevance and importance criteria for cultural, raptor and wildlife values when originally designated as an ACEC. The Green River RMP recommended the designation be retained.

(See Chapter 2 Management Action 7404)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Native American rock art panels | Yes | Culturally significant to the Tribes and to modern local culture. |
| **A fish and wildlife resource:**<br>Raptor nesting area<br>Big game crucial winter range | Yes | The area is a known raptor nesting area and is within big game crucial winter range habitat. |
| **A natural process or system:** | No | -- |
| **Natural hazards:** | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area contains some well-developed Native American rock art panels. The area's remote and little-known location has served to protect the area from vandalism common to rock art panels. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The fragile nature of sandstone rock art panels makes this resource extremely vulnerable to vandalism and seismic activity, whether human or naturally caused. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The rock art panels have been recognized as having high cultural significance to the tribes. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for significant historic, cultural and wildlife values and is evaluated for future management actions in the final EIS.

## Figure C-1. Map of the Cedar Canyon ACEC

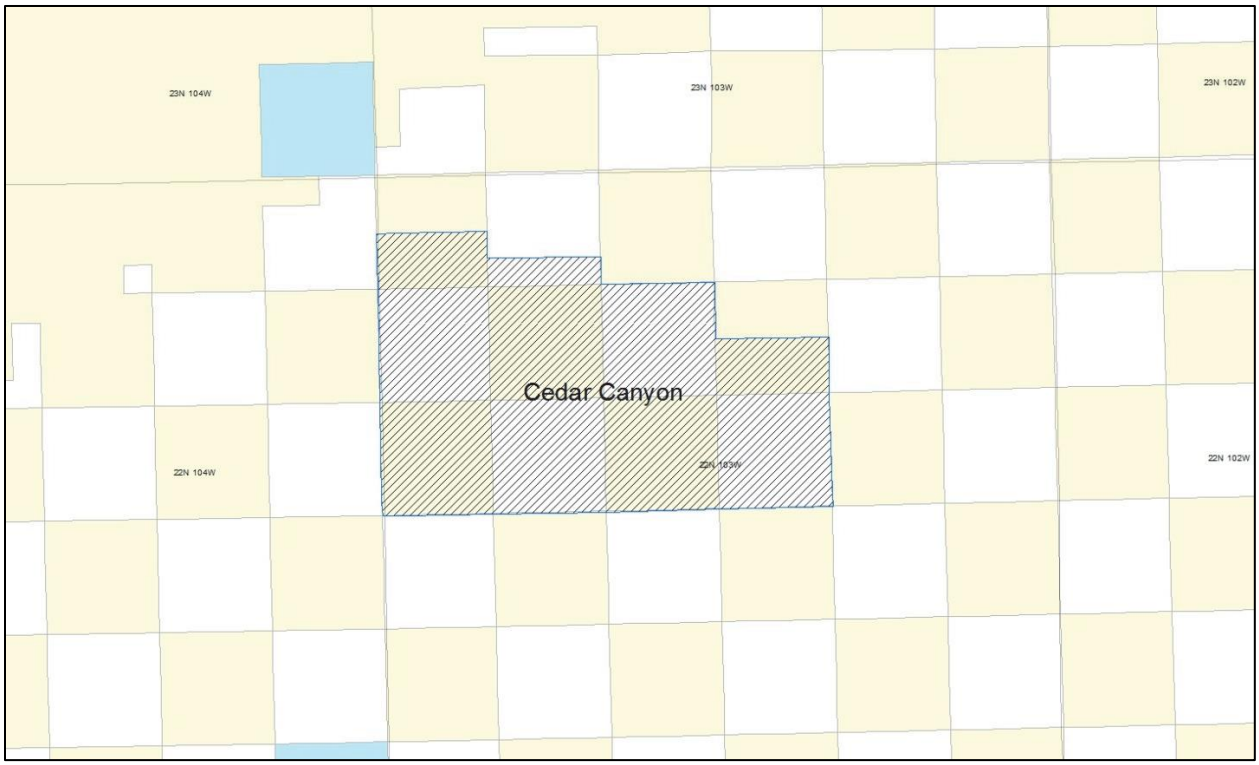


**Figure C-2. Cedar Canyon Rock Art**

# C.2 GREATER RED CREEK ACEC EVALUATION

## C.2.1 Red Creek Portion of the Greater Red Creek ACEC Evaluation

| Area Considered | Red Creek |
|---|---|
| General Location | The area is located north of the Utah/Wyoming border, approximately 32 miles south of the City of Rock Springs and contains the tributaries to Red Creek. |
| General Description | This area contains the Red Creek Escarpment and the Red Creek Drainage, in addition to the Red Creek Wilderness Study Area (WSA). |
| Public Land Acres | 55,718 |
| Values Considered | Red Creek Escarpment scenic values. Special Status Species: sage-grouse, raptor nesting habitat, Colorado River cutthroat trout. Big game crucial winter range and parturition habitat. Historic era graves: Bill Pidgeon. Paleontological resources: formations known to yield important reptile and avian fossil specimens. |

**History**: The Greater Red Creek ACEC was identified in the Green River RMP as meeting relevance and importance criteria for unstable fragile sensitive soils, unique ecological features, watershed and cultural values, and sensitive species of regional, national, and international importance. The values for the existing Red Creek ACEC remain the same as identified when Red Creek was originally designated an ACEC and was retained in the Green River RMP. It was also expanded to include the Current Creek and Sage Creek portions at that time.

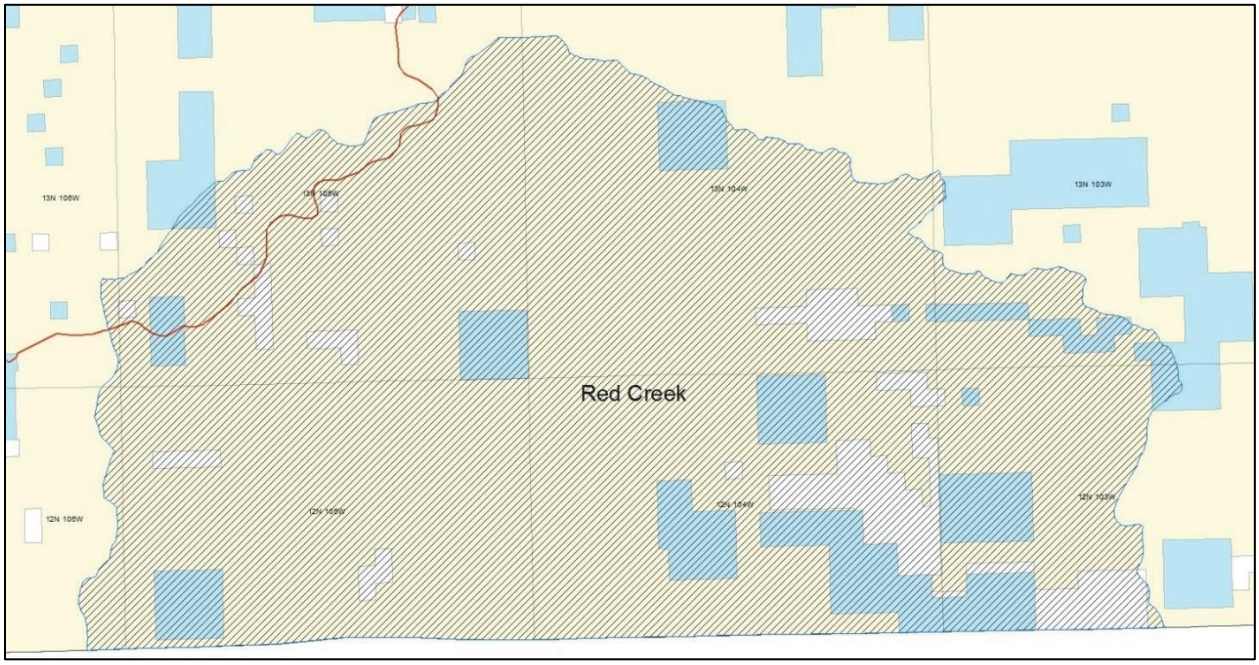
(See Chapter 2 Management Action 7418 & 7439)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Bill Pidgeon's grave<br>Red Creek Escarpment<br>Red Creek WSA | Yes | This area contains the grave of notorious outlaw Bill Pidgeon. It is also a favorite location for scenery photography and scenery painters because of its diverse visual variety. The Red Creek WSA, along with the scenic values of Teepee Mountain, Richards Gap, Minnie's Gap, and the Red Creek Escarpment make this area one of the more impressive scenic vistas in the planning area. |
| **A fish and wildlife resource:**<br>Colorado River cutthroat trout<br>Big game crucial winter range<br>Big game parturition | Yes | The area contains significant habitat for the Colorado River cutthroat trout, a BLM sensitive species. It also contains significant big game crucial winter range and parturition habitat. |
| **A natural process or system:**<br>Red Creek Escarpment<br>Old growth juniper communities<br>Special Status plant species<br>Paleontological resources | Yes | The area contains the Red Creek Escarpment, a unique geologic feature. This area contains relic plant communities and old growth juniper. It also has surface expressions of formations known to yield important reptile and avian fossil specimens in addition to more common fossil resources. |
| **Natural hazards:**<br>Red Creek Escarpment | Yes | Due to the fragile nature of the unstable soils that make up the escarpment, and the highly erodible nature and salt content of soils in the balance of the Red Creek area, the Red Creek drainage is part of the Colorado River Basin Salinity Control Act of 1974. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area contains big game crucial winter range and parturition habitat, as well as habitat for the Colorado river cutthroat trout. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | Due to the fragile nature of the unstable soils that make up the escarpment, and the highly erodible nature and salt content of soils in the balance of the Red Creek area, the Red Creek drainage is part of the Colorado River Basin Salinity Control Act of 1974.. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | In addition to special status habitat, the Red Creek drainage is part of the Colorado River Basin Salinity Control Act of 1974.<br>This area contains relic old growth juniper. It also has surface expressions of formations known to yield important reptile and avian fossil specimens in addition to more common paleontological resources. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, paleontological, wildlife, and scenic values and is evaluated for future management actions in the final EIS.

**Figure C-3. Map of Red Creek Portion of the Greater Red Creek ACEC**




## C.2.2 Currant Creek Portion of the Greater Red Creek ACEC Evaluation

| Area Considered | Current Creek |
|---|---|
| **General Location** | The Currant Creek drainage basin is located approximately 25 miles south and west of the City of Rock Springs. The area is west of State Highway 191 North, east of Flaming Gorge Reservoir, between Currant Creek Ridge and Big Ridge. |
| **General Description** | The area generally contains varying habitats, including riparian along the stream, sagebrush and juniper habitats, and some aspen and pine habitat. |
| **Public Land Acres** | 23,685 |
| **Values Considered** | Cultural resources: historic graves and Cherokee Trail. Wildlife: big game crucial winter range, big game parturition habitat, Special Status Species: Colorado River cutthroat trout, sage-grouse priority habitat management areas (PHMA).<br>Paleontological resources. |

**History**: The Greater Red Creek ACEC was identified in the Green River RMP as meeting relevance and importance criteria for unstable fragile sensitive soils, unique ecological features, watershed and cultural values, and sensitive species of regional, national, and international importance. The values for the existing Red Creek ACEC remain the same as identified when Red Creek was originally designated an ACEC and was retained in the Green River RMP. It was also expanded to include the Currant Creek and Sage Creek portions at that time.

(See Chapter 2 Management Action 7434)

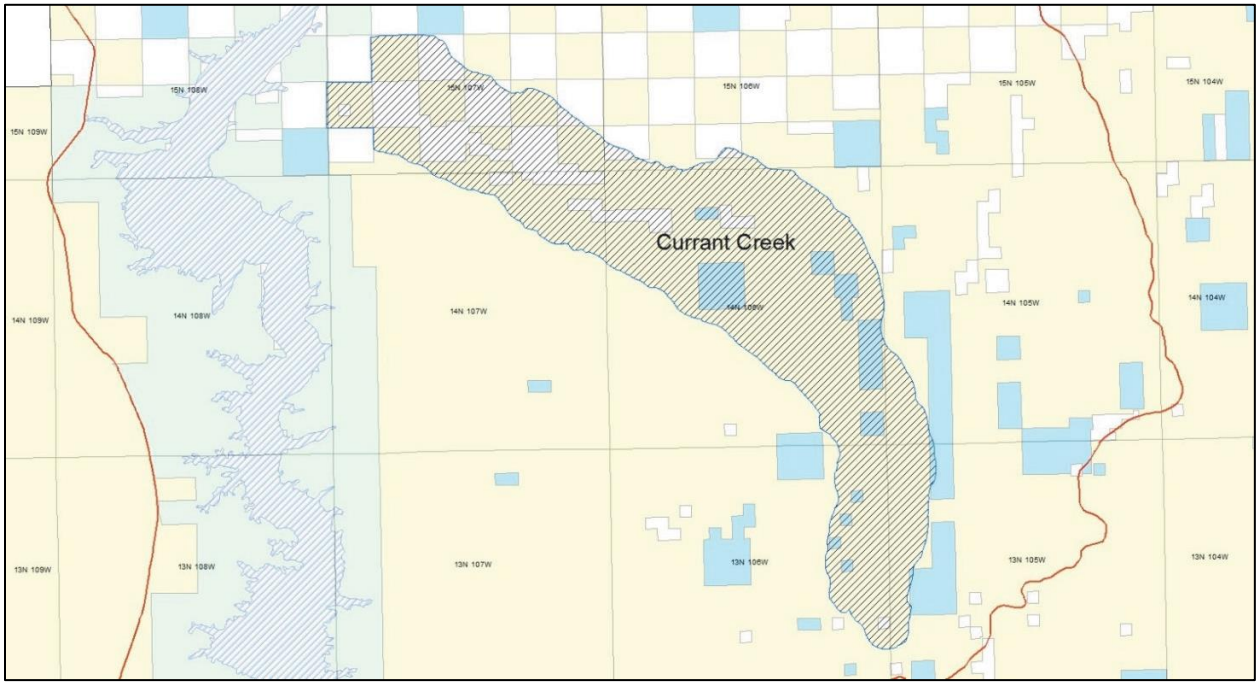
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Cherokee Trail | Yes | This area contains intact contributing sections of the Cherokee Trail. It also includes sweeping vistas of the adjacent Flaming Gorge National Recreation Area. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>Colorado River cutthroat trout Elk and deer crucial habitat<br>Sage-grouse PHMA | Yes | The area contains significant habitat for BLM sensitive species including sage-grouse PHMA and the Colorado River cutthroat trout. It also contains significant big game crucial winter range and parturition habitat. |
| **A natural process or system:**<br>Special Status plant species<br>Paleontology resources | Yes | This area contains relic plant communities, old growth juniper, and habitat for the Ownbey's thistle, a BLM sensitive species. It also has surface expressions of formations known to yield important reptile and avian fossil specimens in addition to more common fossil resources. |
| **Natural hazards:**<br>Pine bark beetle kill | Yes | Natural hazards include large zones of standing dead timber, which significantly increases the potential for wildfire. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area contains Jayne's Meadow, an important area for sensitive species protection. The area has significant habitat for the Colorado River cutthroat trout, a BLM sensitive species.<br>The area also contains the Cherokee Trail which is a candidate to become a designated National Historic Trail. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area contains sage-grouse PHMA, big game crucial winter range and parturition habitat, and contains in-stream structures designed to protect Colorado River cutthroat trout. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The protection of a pure strain of Colorado River cutthroat trout is a national priority in order to sustain the species. The area has sage-grouse PHMA, and intact sections of the Cherokee Trail. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, paleontological, scenic and wildlife values, and is evaluated for future management actions in the final EIS.

**Figure C-4. Map of Currant Creek Portion of the Greater Red Creek ACEC**




## C.2.3 Sage Creek Portion of the Greater Red Creek ACEC Evaluation

| **Area Considered** | **Sage Creek** |
|---|---|
| **General Location** | The Sage Creek drainage is located 20 miles south of the City of Rock Springs, seven miles north of the Utah/Wyoming border, east of Big Ridge, and 18 miles west of U.S. Highway 430. |
| **General Description** | This area contains varying habitat types, including sagebrush, juniper, and riparian, and also includes important habitat for a variety of wildlife species. In addition, the area contains scientifically significant fossil resources. |
| **Public Land Acres** | 52,199 |
| **Values Considered** | Cultural resources: Cherokee Trail, historic graves, Logan School House, and numerous prehistoric sites. Wildlife: big game crucial winter range and parturition habitat. Special Status Species: Colorado River cutthroat trout, sage-grouse PHMA. Paleontological resources: important reptile and avian fossil specimens. |

**History**: The Greater Red Creek ACEC was identified in the Green River RMP as meeting relevance and importance criteria for unstable fragile sensitive soils, unique ecological features, watershed and cultural values and sensitive species of regional, national, and international importance. The values for the existing Red Creek ACEC remain the same as identified when Red Creek was originally designated an ACEC and was retained in the Green River RMP. It was also expanded to include the Current Creek and Sage Creek portions at that time.

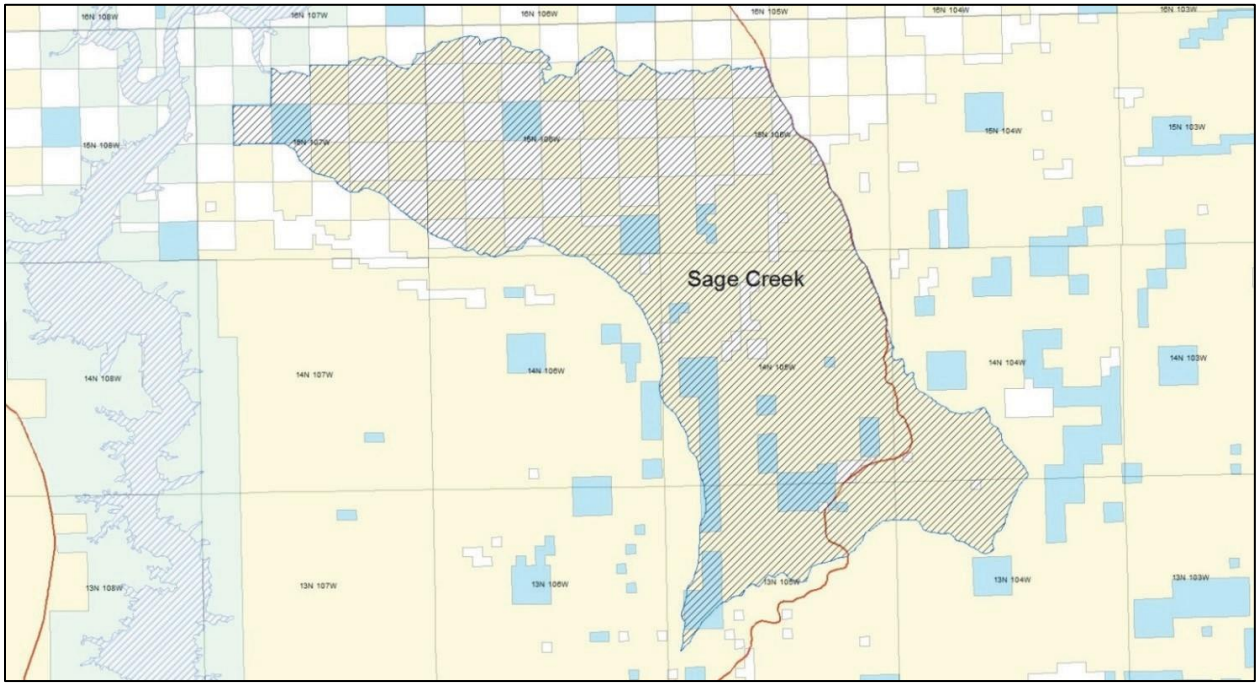
(See Chapter 2 Management Action 7431)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Melinda Armstrong's Grave<br>Surveyor Grave (Mike Gibbons)<br>Cherokee Trail<br>Logan School House | Yes | This area contains two identified human graves, one belonging to pioneer woman Melinda Armstrong who is buried beside the Cherokee Trail. The trail through this area contains some of the best expressions of intact setting along the Cherokee Trail found in the planning area. The other grave is Mike Gibbons, a surveyor who died on the job and was buried here. In addition, the historic Logan School House still stands where it was built to educate children from the surrounding ranches. |
| **A fish and wildlife resource:**<br>Colorado River cutthroat trout<br>Sage-grouse PHMA<br>Big game crucial winter range<br>Big game parturition | Yes | The area contains big game crucial winter range and parturition habitat. It is also contains sage-grouse PHMA and habitat for the Colorado River cutthroat trout. |
| **A natural process or system:**<br>Relic plant communities<br>Fossil assemblages | Yes | The area contains some of the oldest old-growth juniper in the planning area. It also contains habitat for the Ownbey's thistle, a BLM sensitive species. It has surface expressions of formations known to yield important reptile and avian fossil specimens in addition to more common fossil resources. |
| **Natural hazards:**<br>Greater than 25% slopes<br>Numerous springs<br>Occurrence of natural cause wildfire | Yes | The area is composed of many slopes that are greater than 25%. When combined with unstable fragile soils and a high occurrence of natural springs, there may be a high probability of landslides. In addition, the area has some of the highest probability for naturally ignited wildfires in the planning area. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area contains known human burials, the nationally significant Historic Cherokee Trail, which is a candidate to be designated as a National Historic Trail (NHT), as well as historic structures including the Logan School House. It also contains habitat for Ownbey's thistle and Colorado River cutthroat trout. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | This area contains fragile soils, sage-grouse PHMA, Colorado River cutthroat trout, and Ownbey's thistle habitat. It also has historic structures and other cultural/historical sites. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The Sage Creek drainage is part of the Colorado River Basin Salinity Control Act of 1974 area. The inventory unit also contains sage-grouse PHMA, Colorado River cutthroat trout, and Ownbey's thistle habitat. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | Yes | This area has a higher occurrence for wildfire, which poses a threat to life and property. |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, paleontological, soils and wildlife values, and is evaluated for future management actions in the final EIS.

**Figure C-5. Map of Sage Creek Portion of the Greater Red Creek ACEC**




# C.3 SALT WELLS ACEC EVALUATION

| **Area Considered** | **Salt Wells** |
|---|---|
| **General Location** | The area is 25 miles south of Interstate 80 and bounded by the checkerboard lands. It is west of Adobe Town Rim, east of and directly adjacent to the existing Red Creek ACEC, and north of the Colorado/Wyoming border. |
| **General Description** | Salt Wells includes important bird areas along with other important wildlife habitats. It also includes several historic trails. |
| **Public Land Acres** | 249,326 |
| **Values Considered** | Cultural: Cherokee and Overland Trails. Paleontological resources: scientifically important paleo-botany fossil assemblages. Wildlife: sage-grouse PHMA, raptor nesting, and big game crucial winter range. |

**History**: The Greater Red Creek ACEC was identified in the Green River RMP as meeting relevance and importance criteria for unstable fragile sensitive soils, unique ecological features, watershed and cultural values, and sensitive species of regional, national, and international importance. The values for the existing Red Creek ACEC remain the same as identified when Red Creek was originally designated an ACEC and was retained in the Green River RMP. It was also expanded to include the Current Creek and Sage Creek portions at that time. The Salt Wells and Sugarloaf Basin portions are proposed to be added with this effort.

(See Chapter 2 Management Action 7312)

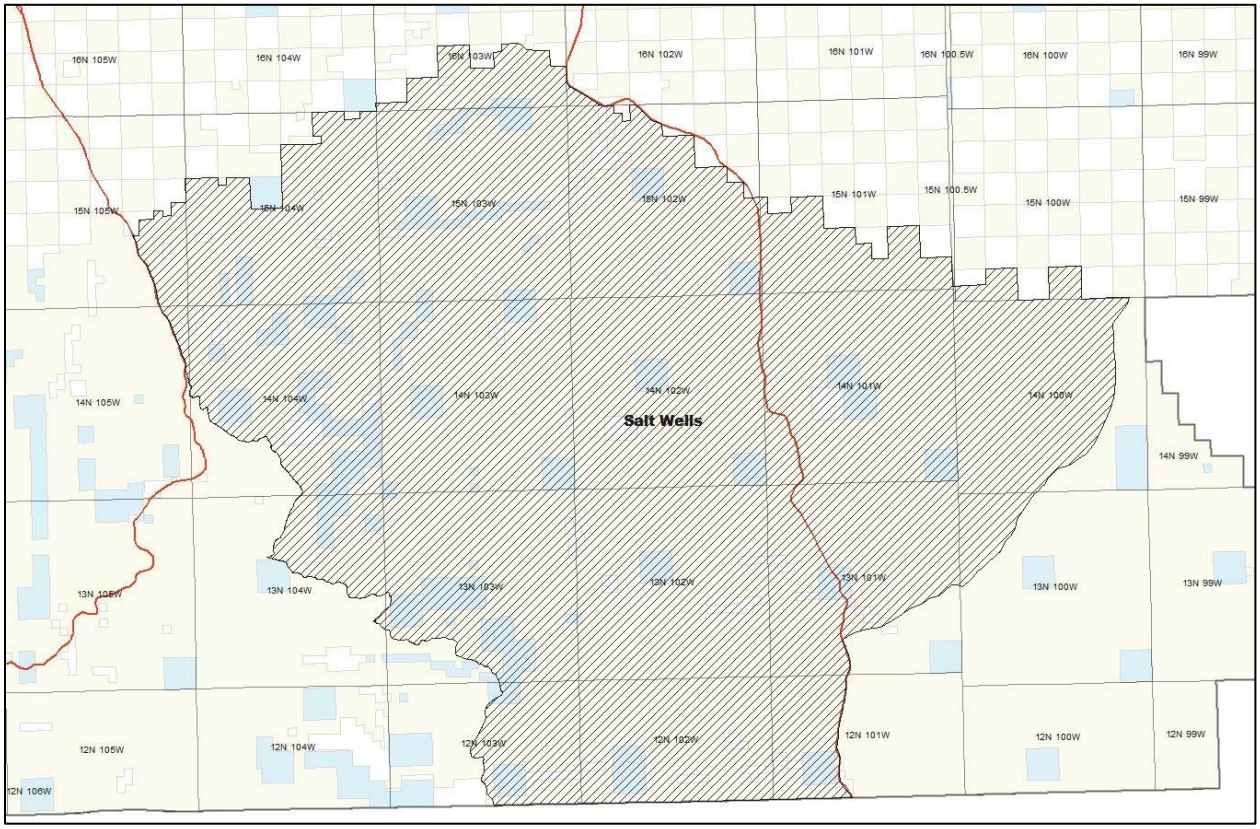
| **Relevance Value** | **Meets Value (Yes/No)** | **Rationale for Determination** |
|---|---|---|
| **A significant historic, cultural, or scenic value:** Cherokee and Overland Trail Brown's Park Wagon Road | Yes | The area contains intact contributing sections of the Cherokee Trail and the Pine Butte Variant of the Overland Trail, which are both candidates to be designated as NHTs. Also, the Brown's Park Wagon Road crosses north-south through the area. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>Raptor nesting area<br>Sage-grouse core<br>Big game crucial habitat | Yes | Pine Mountain and Four J Rim are significant raptor nesting areas. It also contains sage-grouse PHMA and big game crucial winter habitat. |
| **A natural process or system:**<br>Old growth juniper | Yes | Portions of the Salt Wells area contain some of the oldest juniper communities in the planning area. |
| **Natural hazards:**<br>Steep cliffs<br>Fragile soils<br>Pine bark beetle killed trees | Yes | The steep cliffs and fragile, highly erodible soil indicate a high landslide potential. In addition, large areas of pine bark beetle infested trees pose a threat from wildfire. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | Intact sections of the Cherokee Trail and Browns Park Wagon Road cross the area. In addition, the area contains big game crucial winter range, sage-grouse PHMA, and significant raptor nesting habitat. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | This area is a type location for scientifically important paleo- botany fossil assemblages. It contains sage-grouse PHMA and highly erosive sensitive soils. The area contains intact sections of the Cherokee Trail, Overland Trail and Browns Park Wagon Road. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area contains sage-grouse PHMA and highly erosive sensitive soils. Intact sections of the Cherokee Trail, Overland Trail and Browns Park Wagon Road cross the area. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, paleontological, and important wildlife values, and is evaluated for future management actions in the final EIS.

**Figure C-6. Map of Salt Wells Area**




# C.4 SUGARLOAF BASIN ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **Sugarloaf Basin** |
| **General Location** | The area is located 30 miles south and west of the City of Rock Springs. It is between the existing Red Creek ACEC and the Flaming Gorge National Recreation Area and north of the Utah/Wyoming border. |
| **General Description** | This area contains the Sugarloaf Basin Petroglyphs, as well as habitat for Special Status Species. |
| **Public Land Acres** | 87,243 |
| **Values Considered** | Cultural: Sugarloaf Basin rock art site, scenic – Flaming Gorge vistas. Wildlife: big game crucial winter range and parturition habitat. Special Status Species: sage- grouse PHMA, Ownbey's thistle. Paleontology: Middle-Eocene fossil assemblages. |

**History:** This is a new ACEC proposal.

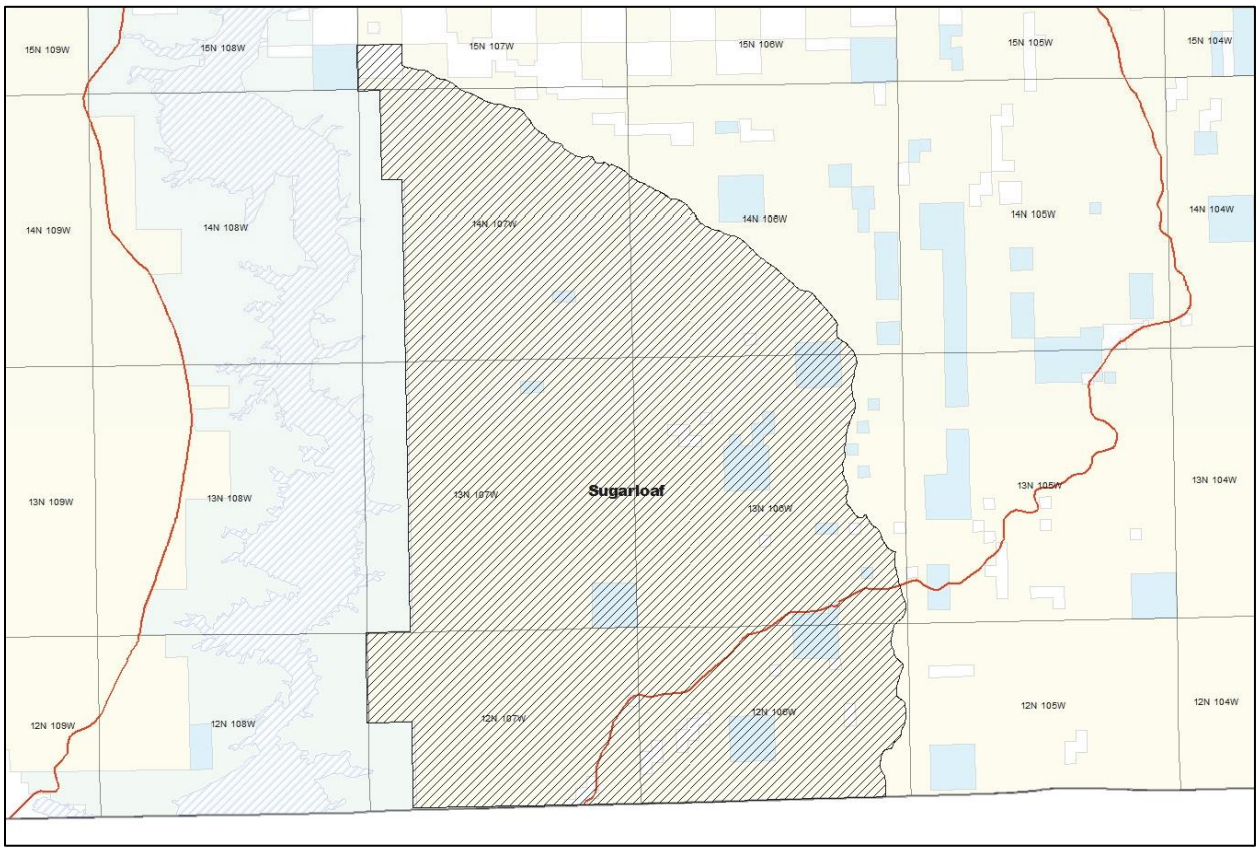
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Sugarloaf Petroglyphs<br>Native American religious concerns<br>High scenic values | Yes | This area contains the Sugarloaf Basin Petroglyphs site, which is highly significant to the Tribes. It also contains sweeping vistas of adjacent Flaming Gorge National Recreation Area and includes surface expressions of the Glenwood formation and other high scenic value areas. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>Midget faded rattlesnake habitat<br>Pygmy rabbit habitat<br>Sage-grouse PHMA<br>Big game crucial winter range<br>Big game parturition | Yes | This area contains habitat for BLM sensitive species, including known populations of midget faded rattlesnakes, pygmy rabbits, and is sage grouse PHMA (see BLM GSG Plans). In addition, it contains big game crucial winter range and parturition habitat. |
| **A natural process or system:**<br>Little Mountain<br>Relic pinion-juniper plant communities<br>Type location for Middle-Eocene fossil assemblages | Yes | The area includes the western portion of Little Mountain which has local cultural significance. The area contains relic pinion- juniper plant communities and is also a type-location for Middle- Eocene fossil assemblages. |
| **Natural hazards:**<br>Unstable soil Fire | Yes | The area contains highly erosive unstable soils making it more susceptible to landslide. The area also has one of the highest occurrences of naturally caused wildfire in the planning area. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area has high significance to Native American Tribes and local culture. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | This area contains known locations of BLM sensitive species, including midget faded rattlesnake, pygmy rabbits, and contains sage-grouse PHMA. It also contains a relic pinion-juniper plant community and known locations of Ownbey's thistle. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area is a sage-grouse PHMA area and contains known locations of Ownbey's thistle, a BLM sensitive plant species. Drainages that feed into Flaming Gorge reservoir are part of the Colorado River Basin Salinity Control Act of 1974. It also contains a portion of the West-Wide Energy Corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | Yes | Higher wildfire occurrence poses a threat to human life and property. |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, paleontological, wildlife and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-7. Map of Sugarloaf Basin Area**




# C.5 GREATER SAND DUNES ACEC EVALUATION

## C.5.1 East Portion of the Greater Sand Dunes ACEC Evaluation

| Area Considered | Greater Sand Dunes |
|---|---|
| **General Location** | The east portion of the Greater Sand Dunes is located 23 miles north and east of the City of Rock Springs, east of the Sand Dunes WSA and west of the Steamboat ACEC. |
| **General Description** | This area contains the Killpecker Sand Dunes Open Play Area and the Crookston Homestead cultural site. |
| **Public Land Acres** | 12,927 |
| **Values Considered** | Cultural resources: Crookston historic homestead. Recreation resources: Killpecker Sand Dunes Open Play Area. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA. Plant communities: basin big sagebrush/lemon scurfpea. |

**History**: This area was reviewed in the Green River RMP and the Jack Morrow Hills Coordinated Activity Plan (CAP) and found to meet the relevance and importance criteria for outstanding geological features, prehistoric and historic values of national significance, and recreation values of regional and national importance as identified when originally designated an ACEC. The ACEC designation was retained.

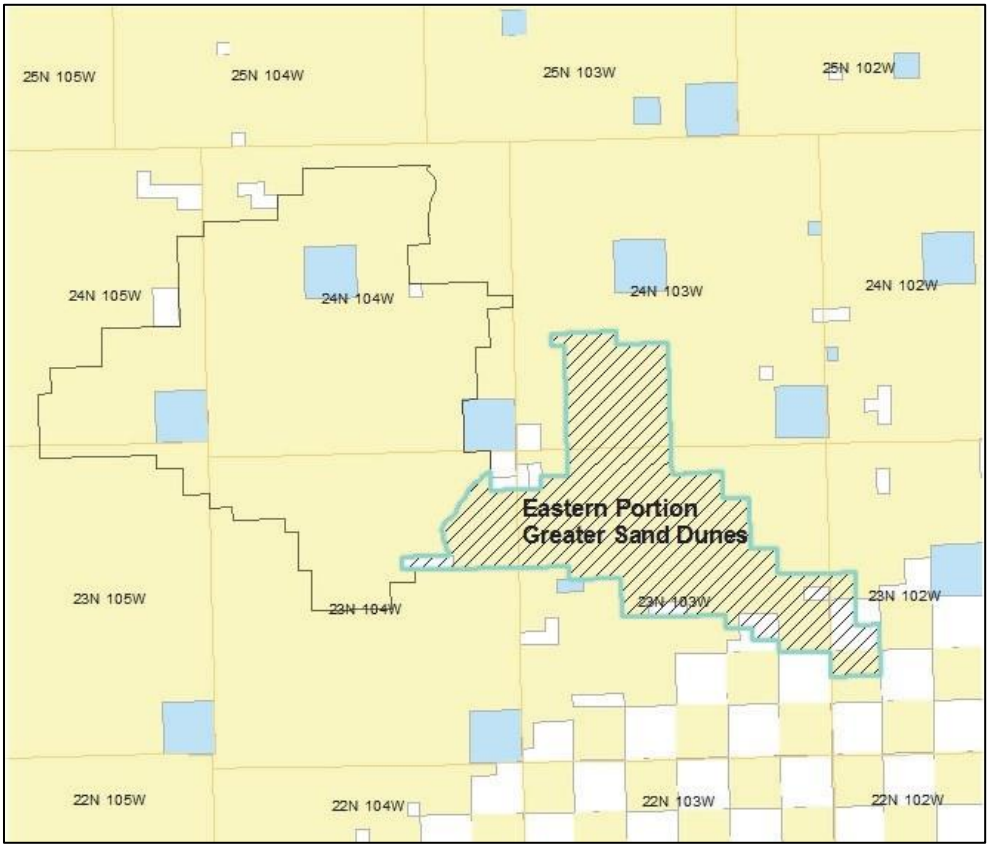
(See Chapter 2 Management Action 7446)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Stabilized sand dunes (cultural sites)<br>Crookston Homestead | Yes | The area has significant stabilized sand dunes which have in the past yielded intact historic and prehistoric information in intact provenience. The historic Crookston Ranch Homestead is also located within the area. |
| **A fish and wildlife resource:**<br>Sage-grouse PHMA<br>Big game crucial winter range<br>Big game parturition<br>Flockets | Yes | This area contains a small portion of sage-grouse PHMA. It also includes big game crucial winter range and parturition habitat. These animals use the dunal ponds called "flockets" in the sand dunes as watering locations when water becomes scarce elsewhere. |
| **A natural process or system:**<br>Flockets<br>Basin big sage/lemon scurf pea plant community<br>Old growth sage<br>Rare geologic features | Yes | The area includes basin big sagebrush/scurfpea plant communities identified as needing protection. In addition, the area includes known rare geologic features that are unique and fragile, including the sand dunes and flockets. |
| **Natural hazards:**<br>Active sand dunes | Yes | The entire area is part of the nationally and internationally significant Greater Sand Dunes dune system. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area includes the historic Crookston Ranch Homestead which is part of the Greater Sand Dunes dune system. Portions of the designated Sublette mule deer migration corridor cross through this area. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The flockets (interdunal pond areas) and basin big sagebrush/lemon scurfpea communities are both rare, fragile, and irreplaceable. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The historic Crookston Ranch Homestead is eligible for listing on the National Register of Historic Places (NRHP). The Sand Dunes Open Play Area is a nationally known dune riding location due to its remoteness and relatively pristine character. It is a Special Recreation Management Area (SRMA). It also contains a small portion of sage-grouse PHMA, and basin big sagebrush/lemon scurfpea plant communities.<br>Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | Yes | The stabilized sand dunes are co-located with a working natural gas field. These two uses, while not incompatible, are potentially hazardous to have co-located. |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, geological, and wildlife values, and is evaluated for future management actions in the final EIS.

**Figure C-8. Eastern Portion of the Greater Sand Dunes ACEC**




## C.5.2 Western Portion of the Greater Sand Dunes ACEC Evaluation

| **Area Considered** | **Western Greater Sand Dunes** |
|---|---|
| **General Location** | This area is located 23 miles north and east of the City of Rock Springs. It is east of the West Sand Dunes Archeological District and west of the Killpecker Sand Dunes Open Play Area. |
| **General Description** | The Indian Gap and associated Indian Gap Trail are located in this area, as well as important geologic features and known human burials. |
| **Public Land Acres** | 26,364 |
| **Values Considered** | Cultural: Boar's Tusk, Indian Gap. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA. Plant community: basin big sagebrush/lemon scurfpea. |

**History**: This area was reviewed in the Green River RMP and the Jack Morrow Hills CAP and found to meet the relevance and importance criteria for outstanding geological features, prehistoric and historic values of national significance, and recreation values of regional and national importance as identified when originally designated an ACEC. The ACEC designation was retained.

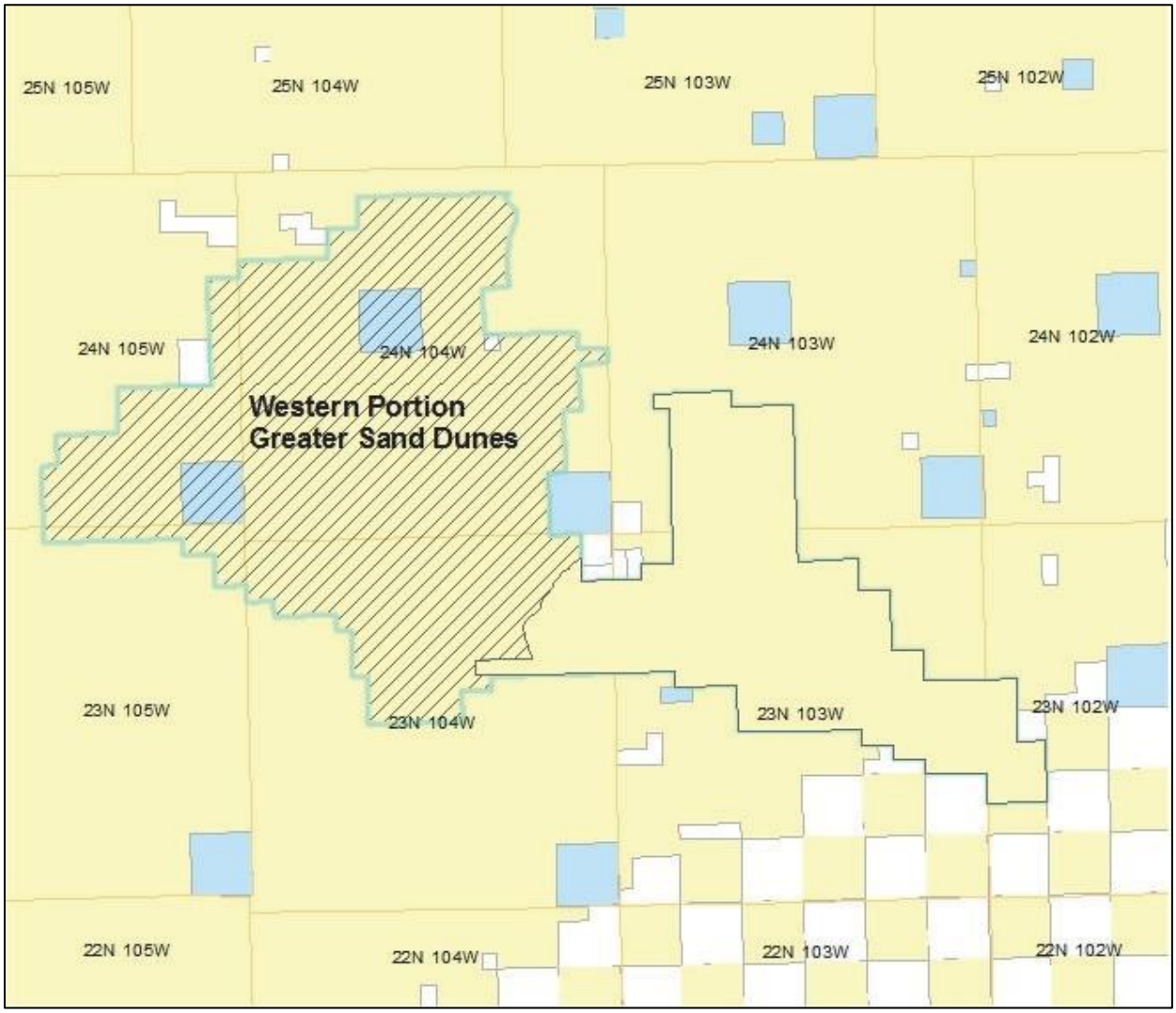
(See Chapter 2 Management Action 7446)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Know human burials<br>Boar's Tusk geologic feature<br>Indian Gap Trail | Yes | This area includes the prehistoric Indian Gap Trail and also has locations of known human burials. The Boar's Tusk geologic feature is significant to the Native American Tribes. |
| **A fish and wildlife resource:**<br>Sage-grouse PHMA<br>Big game crucial winter range<br>Big game parturition<br>Flockets | Yes | This inventory unit contains portions of sage-grouse PHMA. It also contains big game crucial winter range and parturition habitat. These animals use the dunal ponds called "flockets" in the sand dunes as watering locations when water becomes scarce elsewhere. |
| **A natural process or system:**<br>Sand Dunes and Buffalo Hump WSAs<br>Boar's Tusk geologic feature<br>Basin big sagebrush/lemon scurfpea plant community<br>Flockets | Yes | The area contains the Boar's Tusk geologic feature, which meets relevance and importance on its own merits. It also includes portions of the Sand Dunes and Buffalo Hump WSAs. In addition, the area includes the basin big sagebrush/lemon scurfpea plant communities, a rare community identified as needing protection. |
| **Natural hazards:**<br>Stabilized sand dunes. | Yes | The vegetated upper layer of these dunes is extremely fragile and once disturbed, the dune becomes an active sand dune and is susceptible to erosion. An active sand dune is extremely difficult to stabilize again. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The inventory unit contains portions of sage-grouse PHMA. The area also contains significant big game crucial winter range and parturition habitat. In addition, the flockets are individual ecosystems which have not been adequately studied. It also contains basin big sagebrush/lemon scurfpea plant communities. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The inventory unit contains portions of sage-grouse PHMA. The area also contains significant big game crucial winter range and parturition habitat. In addition, the flockets are individual ecosystems which have not been adequately studied. It also contains basin big sagebrush/lemon scurfpea plant communities. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | Known human burials exist in several locations in the area. Boar's Tusk geologic feature is fragile and irreplaceable. In addition, the area includes portions of the Sand Dunes and Buffalo Hump WSAs which require protections under FLPMA. The area also includes basin big sagebrush/lemon scurfpea plant communities.<br>Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | Yes | The Boar's Tusk geologic feature is listed as a desirable climbing location in numerous publications despite it being closed to activities that would damage the feature, such as climbing. The base material is delicate and friable. |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, geological, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-9. Western Portion of the Greater Sand Dunes ACEC**




## C.5.3 Boar's Tusk Portion of the Greater Sand Dunes ACEC Evaluation

| **Area Considered** | **Boar's Tusk** |
|---|---|
| **General Location** | T 23 N R 104 W sec 16. |
| **General Description** | The Boar's Tusk is a unique geological feature. It is a volcanic neck composed of volcanic material intermixed with broken bits of wall-rock. It is similar in age to Devil's Tower and is a known raptor area with existing nests along the various cracks in the surface. |
| **Public Land Acres** | 500 |
| **Values Considered** | Cultural: Tribal significance of Boar's Tusk Geologic Feature. Scenic: high visual qualities. Wildlife: raptor nesting habitat. |

**History**: Boars Tusk is located within the Greater Sand Dunes ACEC but meets relevance and importance criteria on its own merits. It can be designated as part of the Greater Sand Dunes ACEC or as part of the Boar's Tusk ACEC.

(See Chapter 2 Management Action 7455)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Boar's Tusk burial<br>Culturally significant landmark | Yes | The area surrounding Boar's Tusk contains known Native American burial site and has deep traditional and cultural affiliation with the Tribes. In addition, it is a unique feature and is highly significant for significant visual qualities and is a landmark of current cultural significance. |
| **A fish and wildlife resource:**<br>Raptor nesting | Yes | The area is a known raptor nesting location for eagles and other raptors. |
| **A natural process or system:**<br>Boar's Tusk geologic feature | Yes | Boar's Tusk is a unique geologic feature similar in age and significance to Devil's Tower. The feature is referred to as a volcanic core, composed of material that remained in the vent of the volcano as it became dormant. The visible remnants remained after the softer layers around it eroded away. |
| **Natural hazards:** | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | This area is significant to Native American tribes and is a unique geologic feature. It also has local cultural significance. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The Boar's Tusk feature is composed of friable material and is considered unique. It is also a known navigational landmark. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area has local and Tribal significance, and is a unique geologic feature. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | Yes | Activities such as climbing would damage the feature. The friable nature of the rock makes it a public safety issue. |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, scenic, wildlife, and natural values, and is evaluated for future management actions in the final EIS.

**Figure C-10. Boar's Tusk Geologic Feature**

## C.5.4 Crookston Homestead Portion of the Greater Sand Dunes ACEC Evaluation

| Area Considered | Historic Crookston Homestead |
|---|---|
| General Location | T 23 N R 103 W sec 21, center N ½. |
| General Description | Historic homestead site, late 1800s stone construction, located next to Killpecker Sand Dunes. |
| Public Land Acres | 500 |
| Values Considered | Historic Crookston Ranch Homestead site |

**History**: The Crookston Ranch Homestead is part of the Greater Sand Dunes ACEC but meets relevance and importance criteria on its own merits. It could be included as part of the Greater Sand Dunes ACEC or be designated as part of the Greater Sand Dunes ACEC.

(See Chapter 2 Management Action 7471)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:** Crookston Homestead buildings | Yes | The historic Crookston Ranch Homestead is one of the few examples of late 1800s natural stone construction ranch buildings. It is eligible for the NRHP. |
| **A fish and wildlife resource:** None identified | No | -- |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A natural process or system:** Unknown water source for the spring | Yes | The spring runs year-long—even during the driest part of the season. The water source for this spring is unstudied but is most likely fed by the flockets in the sand dunes above it. |
| **Natural hazards:** Destabilized sand dunes | Yes | The shifting sand of the destabilized sand dunes is encroaching on the buildings and riparian area associated with the spring. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | This highly significant cultural site is one of the best examples of late 1800s stone construction architecture found in this area. The area is part of a nationally and internationally recognized dune system. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The buildings are sensitive to seismic activity, whether natural or human caused. Buildings are deteriorating and will require stabilization in the future to retain their characteristic values. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The site is eligible for the NRHP. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic and cultural values, and is evaluated for future management actions in the final EIS.

**Figure C-11. Crookston Homestead**

## C.6 MONUMENT VALLEY ACEC EVALUATION

| Area Considered | Monument Valley |
|---|---|
| General Location | The area is located 15 miles south of Interstate 80, mile marker 156, 12 miles north of the Colorado border, 28 miles east of U.S. Highway 430, and west of the Rock Springs Field Office boundary. |
| General Description | The area contains several outstanding geologic features including high cliffs and deep ravines with highly erodible clay soils. |
| Public Land Acres | 69,955 |
| Values Considered | Cultural: local and national significance. Scenic values: photographed geologic features, WSA. Wildlife: big game crucial winter range, raptor nesting.<br>Paleontology: fossils of scientific interest. |

**History**: This area was evaluated in the Green River RMP for potentially outstanding geologic features, prehistoric and historic clause of national significance and recreation values. Designation determinations were deferred at that time.

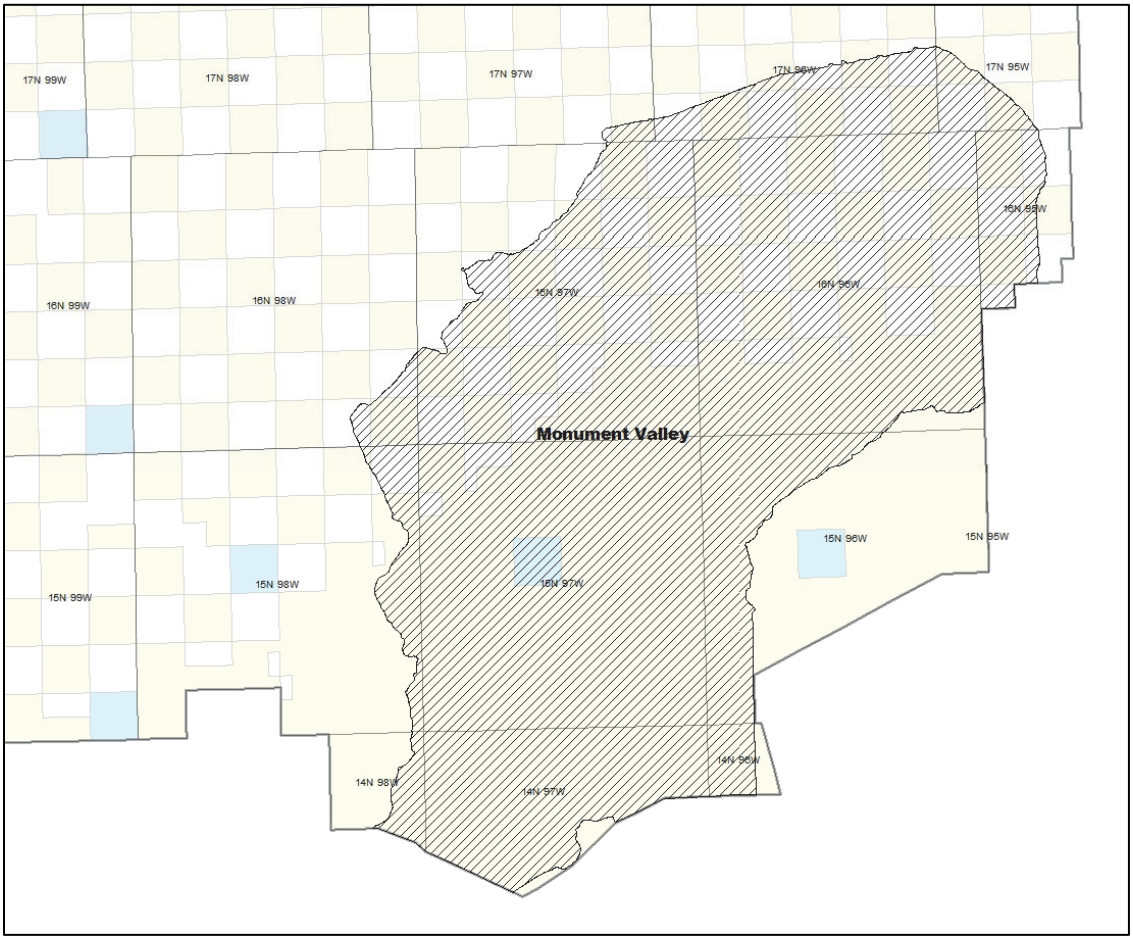
(See Chapter 2 Management Action 7340)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Adobe Town WSA<br>High scenic values | Yes | This includes the north section of the Adobe Town WSA. In addition, areas around the WSA have similar geologic features including high cliffs and deep ravines. The area also contains high scenic values and is a well-known location for photography. |
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Raptor nesting | Yes | High cliffs found in the area provide excellent raptor nesting habitat. In addition, the area contains larger expanses of crucial winter range habitat for big game species. |
| **A natural process or systems:**<br>Geologic features | Yes | The area has some of the most photographed geologic features in the field office, including steep, colorful cliffs and deep ravines. |
| **Natural hazards:**<br>The area is composed of highly erosive clay soils | Yes | The highly erodible clay soils are extremely unstable. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area includes portions of the nationally recognized Adobe Town WSA. The high relief, steep colorful cliffs, and deep ravines provide visual variety. Photographers come from all areas of the country to photograph the features. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | Fossils of scientific interest have been and continue to be studied in the areas inside and outside the WSA. These features are extremely susceptible to adverse change. In addition, the area includes big game crucial winter range habitat. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | This area contains portions of the Adobe Town WSA. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant cultural, paleontological, wildlife and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-12. Map of Monument Valley Area**




# C.7 NATURAL CORRALS ACEC EVALUATION

| Area Considered | Natural Corrals |
|---|---|
| General Location | T 21 N R 102 W sec 12 and 18. |
| General Description | The Natural Corrals is a geographic feature composed of a spring that has eroded a steep valley. The area also contains some unique volcanic features. This valley contains intact archaeological data and serves as a watering location for surrounding wildlife. |
| Public Land Acres | 631 |
| Values Considered | Cultural/Historic: NRHP listed site, Natural Corrals and the ice caves. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA. |

**History**: This area was evaluated in the Green River RMP. It was found to meet relevance and importance criteria for unique volcanic monoliths, prehistoric values of national significance, and outstanding recreation opportunities as identified when designated as an ACEC. The designation was retained.

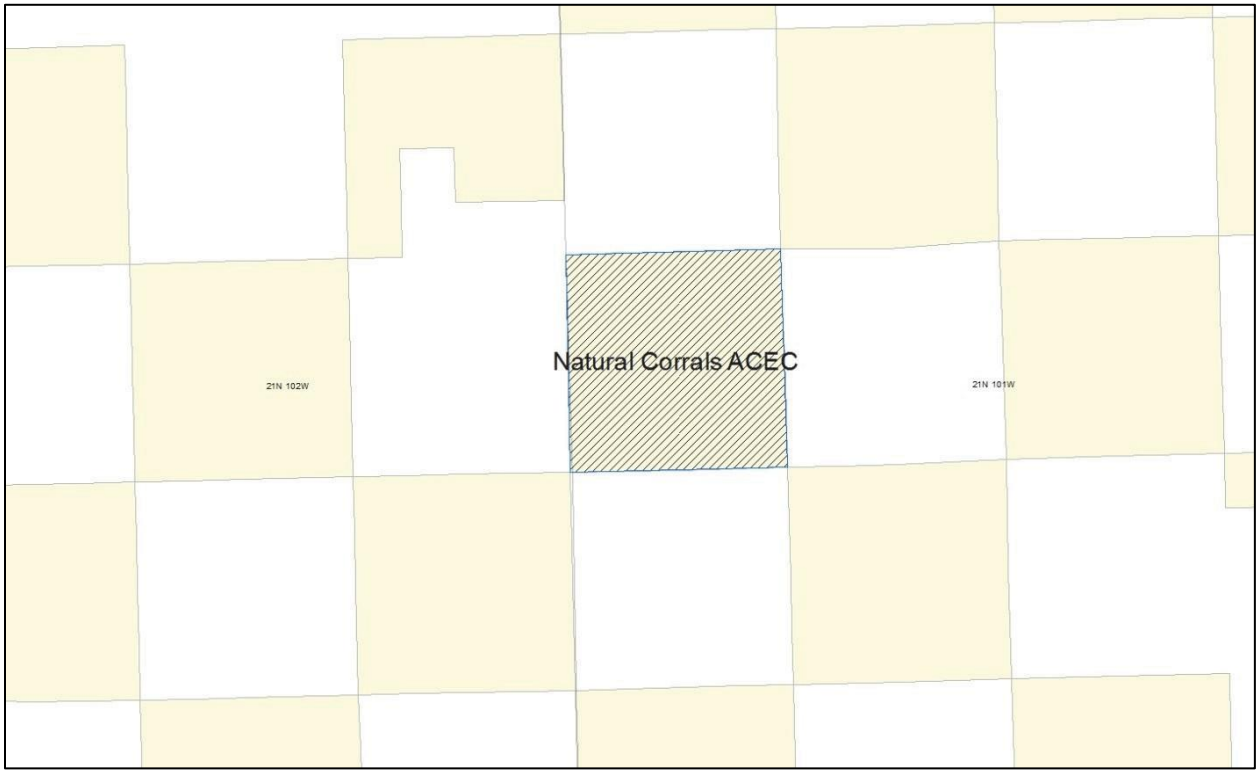
(See Chapter 2 Management Action 7477)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Intact cultural resources<br>Unique geologic features | Yes | The associated cultural site is listed with the NRHP and is a significant location with intact cultural resources. It is also nationally known for the geologic features which make up the 'ice caves'. |
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Big game parturition<br>Sage-grouse PHMA | Yes | The area contains big game crucial winter range and parturition habitat and is located within a portion of the designated Sublette mule deer migration corridor. It is also is within sage- grouse PHMA. |
| **A natural process or system:**<br>Ice caves | Yes | The area contains some features that are similar to caves, where water is stored in the form of ice through the winter. In the warmer months, the ice remains shaded by the surrounding rock and the ice stays frozen long into the warmer months. |
| **Natural hazards:** | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area is listed with the NRHP as having high cultural significance. In addition, the area includes several volcanic features that are study locations for local schools. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area contains big game crucial winter range and parturition habitat as well as sage-grouse PHMA. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The 'caves' are actually naturally occurring stacks of rocks which shade the interior and provide a cool location where stored ice remains frozen even through warmer summer months. The site also contains sage-grouse PHMA.<br>Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | Yes | The area is an aquifer recharge area for the water supply that serves the Town of Superior. |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, wildlife and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-13. Map of Natural Corrals ACEC**




# C.8 OREGON BUTTES ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **Oregon Buttes** |
| **General Location** | T 26 N R 101 W sections 2, 3, 10 and 11 and portions of sections 4, 9, 14 and 15. |
| **General Description** | The area is entirely within the Oregon Buttes and Whitehorse Creek WSAs but does not cover either of the WSAs in their entirety. |
| **Public Land Acres** | 3,440 |
| **Values Considered** | Cultural: historic navigation feature. Scenic values: Oregon Buttes feature and Continental Divide National Scenic Trail (CDNST). Geologic: unique feature with high cliffs. Wildlife: big game parturition, designated Sublette mule deer migration corridor, raptor nesting habitat. Special Status Species: sage-grouse PHMA |

**History**: This area was evaluated in the Green River RMP and found to meet relevance and importance criteria for historic values and Geologic Landmark of National Significance. The ACEC designation was retained.

(See Chapter 2 Management Action 7486)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Cultural and historic<br>Continental Divide National Scenic Trail | Yes | The Oregon Buttes served as an important landmark during the emigration period of U.S. history. In addition, the CDNST spur route connecting the CDNST to the county road is found in this area. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>Big game parturition<br>Raptor nesting<br>Sage-grouse PHMA | Yes | The high cliffs of the Oregon Buttes provide nesting habitat for raptors. The area also contains big game parturition habitat and sage-grouse PHMA. |
| **A natural process or system:**<br>Unique geologic feature<br>Paleontology resources | Yes | The area contains the Oregon Buttes, a nationally significant landmark and a unique geologic feature. In addition, the area includes type locations for geological study. |
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The geologic feature is a nationally recognized landmark. Pioneers emigrating to the west would look to that landmark to know when they had crossed the divide. In addition, the area is of high scenic value. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area is entirely within the Oregon Buttes and Whitehorse Creek WSAs. The area also contains fragile soils which increases the management difficulties at the site. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area is entirely within the Oregon Buttes and Whitehorse Creek WSAs. The area is a nationally recognized landmark used in the NHT. In addition, the area contains sage-grouse PHMA habitat. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, wildlife, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-14. Map of Oregon Buttes ACEC**


# C.9 PINE SPRING EXPANDED ACEC EVALUATION

| **Area Considered** | **Pine Springs and surrounding area** |
|---|---|
| **General Location** | The Pine Spring expanded ACEC portions of T 13 N R 109 W sec 5, 6, 7 and 8; T 13 N R 110 W sec 1 and 12; T 14 N R 109 W sec 29, 30, 31 and 32; T 14 N R 110 W sec 25 and 36. |
| **General Description** | Pine Spring is a Native American sacred landscape. It also includes portions of the Twin Buttes and Devils Playground WSAs and is an important study location for cultural and paleontology resources. Both WSA areas have outstanding scenic, recreation, archaeological, and paleontological values. The area is also representative of the sagebrush-steppe ecosystem in the Wyoming Basin Province ecoregion. |
| **Public Land Acres** | 6,480 |
| **Values Considered** | Cultural: - Pine Spring cultural site and significant tribal concerns. Paleontology: intact paleo-sequencing for the Eocene. Plant community: old growth juniper. |

**History**: The existing site was determined to meet relevance criteria 1 and importance criteria 1 and 2 as a Landmark of National Significance as identified when originally designated as an ACEC. The Green River RMP retained this designation and expanded it to 6,030 acres. Subsequent research revealed other culturally significant sites which warrant protection and the area is recommended for expansion in this effort.

(See Chapter 2 Management Action 7490)

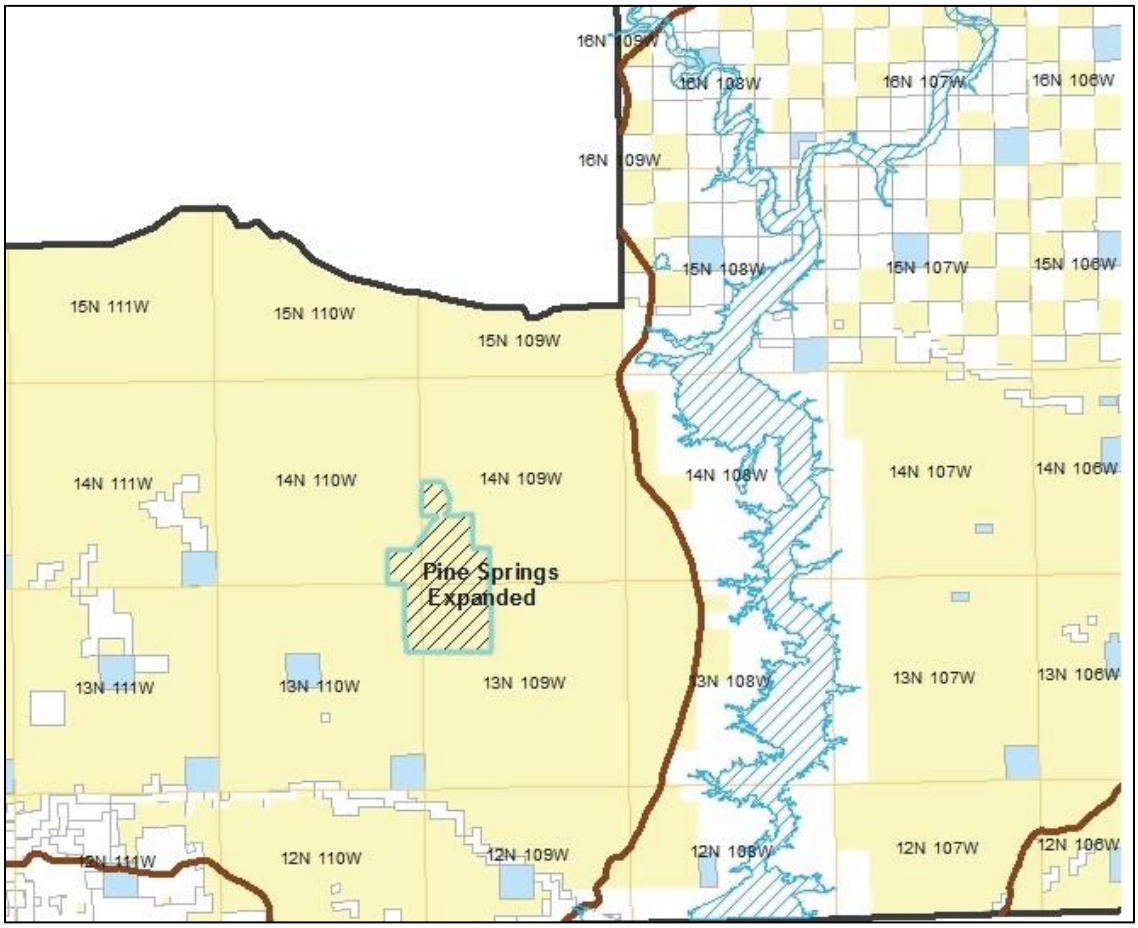
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Native American Sacred Landscape<br>WSAs | Yes | This inventory unit includes the Pine Spring Archaeological Site, and numerous other sites of cultural significance as well as a culturally important Native American landscape. In addition, the inventory unit is a known location for scientifically important fossil assemblages. The area contains portions of the Twin Buttes and Devils Playground WSAs. |
| **A fish and wildlife resource:**<br>None identified | No | -- |
| **A natural process or system:**<br>Paleontology study location<br>Geology interpretation<br>Old-growth juniper | Yes | The area contains significant paleontology resources and is used as a teaching area by several universities to study intact paleo-sequencing for the Eocene, specifically the Bridger series. There are also known concentrations of chromium diopside and Pyrope garnet found along drainages. This inventory unit includes a portion of the Devils Playground WSA, so called because of the unusual erosion features found in the northeast portion of the WSA. The area also includes a portion of the Twin Buttes WSA, an erosion feature so unique it is considered a landmark. In addition, the entire unit includes stands of old growth juniper, considered to be a unique plant community. |
| **Natural hazards:**<br>None identified | Yes | Due to the fragile nature of the unstable soils that make up the Devils Playground and Twin Buttes features, and the highly erodible nature and salt content of soils in the balance of the inventory unit, the area is prone to unstable soils. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | Intact provenience of 9,000 years of human habitation at the Pine Spring cultural site is of national scientific importance. The presence of numerous fossil localities in conjunction with paleontological data of similar strata in adjacent areas suggests that the inventory unit could contain intact faunal sequences of significant scientific interest. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area is recognized as a Traditional Cultural Property (TCP) and a Sacred Landscape. Numerous stone circle sites are present within the proposed area and these have been determined to be of cultural significance. The Twin Buttes and Devils Playground WSAs are of high scenic value, meet the wilderness characteristics required under FLPMA and are highly susceptible to adverse change. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | Several cultural sites located within the inventory unit are eligible for listing with the NRHP. The area contains portions of the Twin Buttes and Devils Playground WSAs. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, and paleontological values, and is evaluated for future management actions in the final EIS.

**Figure C-15. Map of Pine Springs Expanded Area**




# C.10 THE PINNACLES ACEC EVALUATION

| Area Considered | The Pinnacles Geographic Area |
|---|---|
| **General Location** | Portions of T 24 N R 100 W sec 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 26 and 27. |
| **General Description** | Areas of high desert sagebrush communities surrounding the Pinnacles Geologic Feature. |
| **Public Land Acres** | 1,969 |

| **Area Considered** | **The Pinnacles Geographic Area** |
|---|---|
| **Values Considered** | Scenic: Pinnacles Feature, focal landscape. Wildlife: big game crucial winter range, raptor nesting. Geology: unique fractured and friable rock feature. |

**History**: Evaluation of The Pinnacles was deferred in the Green River RMP due to location within the Jack Morrow Hills planning area. The Jack Morrow Hills CAP evaluation determined that The Pinnacles met relevance 1 and importance 1 and 2 as having significant scenic value and natural processes or systems, for more than locally significant qualities that make the area fragile, sensitive, rare and vulnerable to adverse change. The management area was further determined to be effectively manageable as part of the Red Desert Watershed Management Area. The added relevance criterion for wildlife elevates the significance of the area. This area is also part of the Red Desert and may be considered for management as part of the Red Desert ACEC or as an independent ACEC.

(See Chapter 2 Management Action 7336)

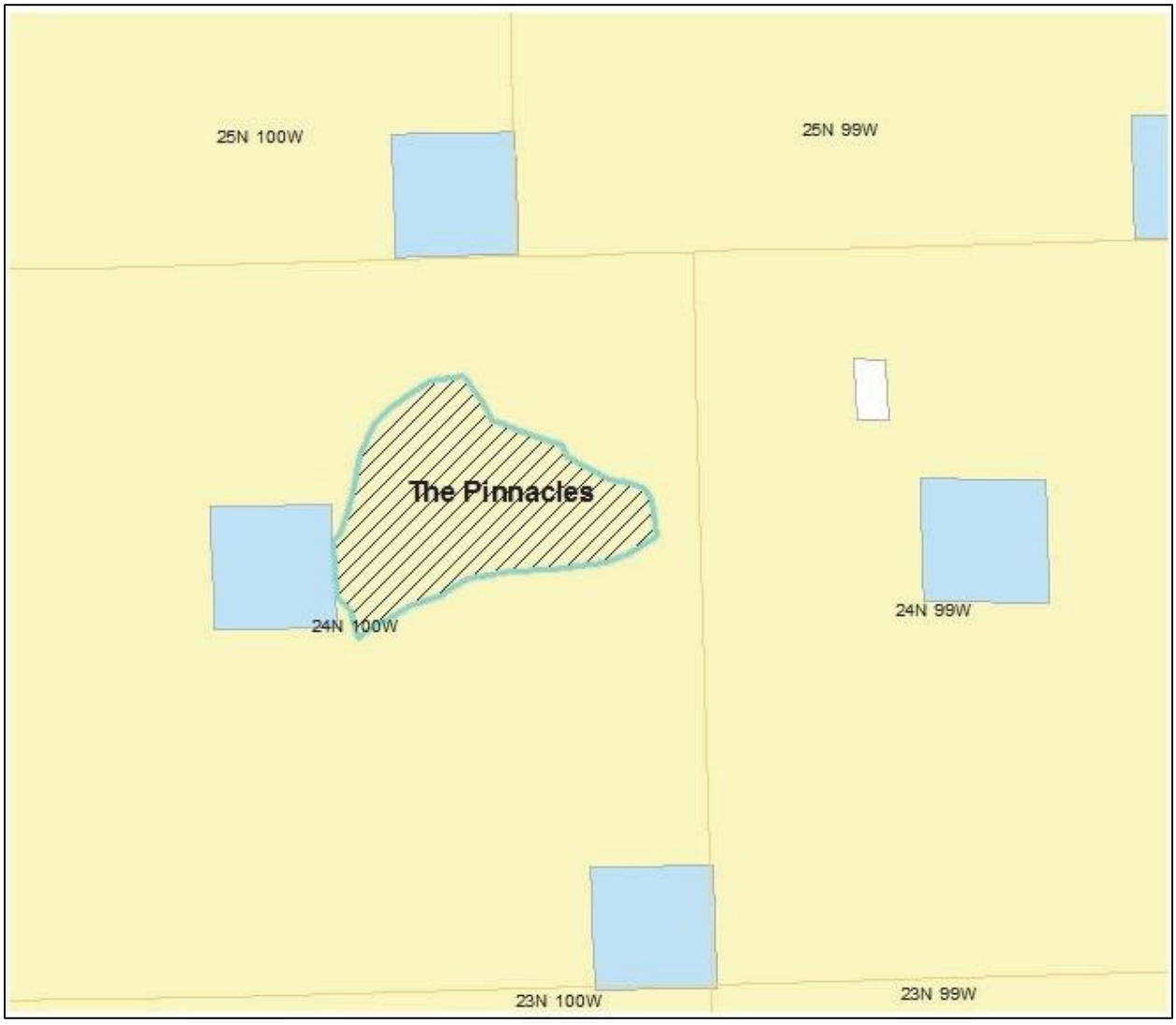
| **Relevance Value** | **Meets Value (Yes/No)** | **Rationale for Determination** |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Scenic | Yes | The area is a focal landscape, meaning the eye is automatically drawn to the feature and that feature presents a striking difference from the surrounding area providing a higher than normal degree of visual variety. |
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Raptor nesting | Yes | The area is identified as big game crucial winter range. The steep sides of The Pinnacles provide nesting habitat for raptors. |
| **A natural process or system:**<br>The geologic feature | Yes | The base rock which makes up the feature is fragile and friable. Such features are considered unique and irreplaceable. |
| **Natural hazards:**<br>None identified | No | -- |

| **Importance Value** | **Yes/No** | **Rationale for Determination** |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area is listed with the Visual Resource Inventory (VRI) Class II. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The Pinnacles feature is considered a unique resource, fragile, friable and not replaceable. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | No | -- |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant wildlife, geologic, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-16. Map of The Pinnacles Area**




# C.11 WESTERN PORTION OF THE RED DESERT WATERSHED ACEC EVALUATION

| Area Considered | West portion of the Red Desert |
|---|---|
| **General Location** | The west portion of the Red Desert is that area south of the north boundary of Honeycomb Buttes WSA, west of the Continental Divide, north of the checkerboard lands, and west of the Jack Morrow Hills planning area boundary. |

| **Area Considered** | **West portion of the Red Desert** |
|---|---|
| **General Description** | The area generally consists of high-desert sagebrush communities and includes The Pinnacles geologic feature and all of the Alkali Draw, South Pinnacles and Honeycomb Buttes and portions of the Oregon Buttes WSAs. |
| **Public Land Acres** | 162,983 |
| **Values Considered** | Scenic: VRI Class II, CDNST. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA, large-fruited bladderpod. Geology: Pinnacles feature, hydrologically closed basin. |

**History**: In the Green River RMP the entire Red Desert Watershed area met relevance criteria 1 and 3 but failed to meet importance criteria. It was deferred in the Green River RMP due to portions of the area being located within the Jack Morrow Hills planning area. The west portion of the Red Desert is the area inside the Jack Morrow Hills boundary. This area could be added to the Steamboat Management Area or could be managed as an independent ACEC. The eastern portion is outside the Jack Morrow Hills planning area and did not meet the relevance and importance criteria.

(See Chapter 2 Management Action 7446)

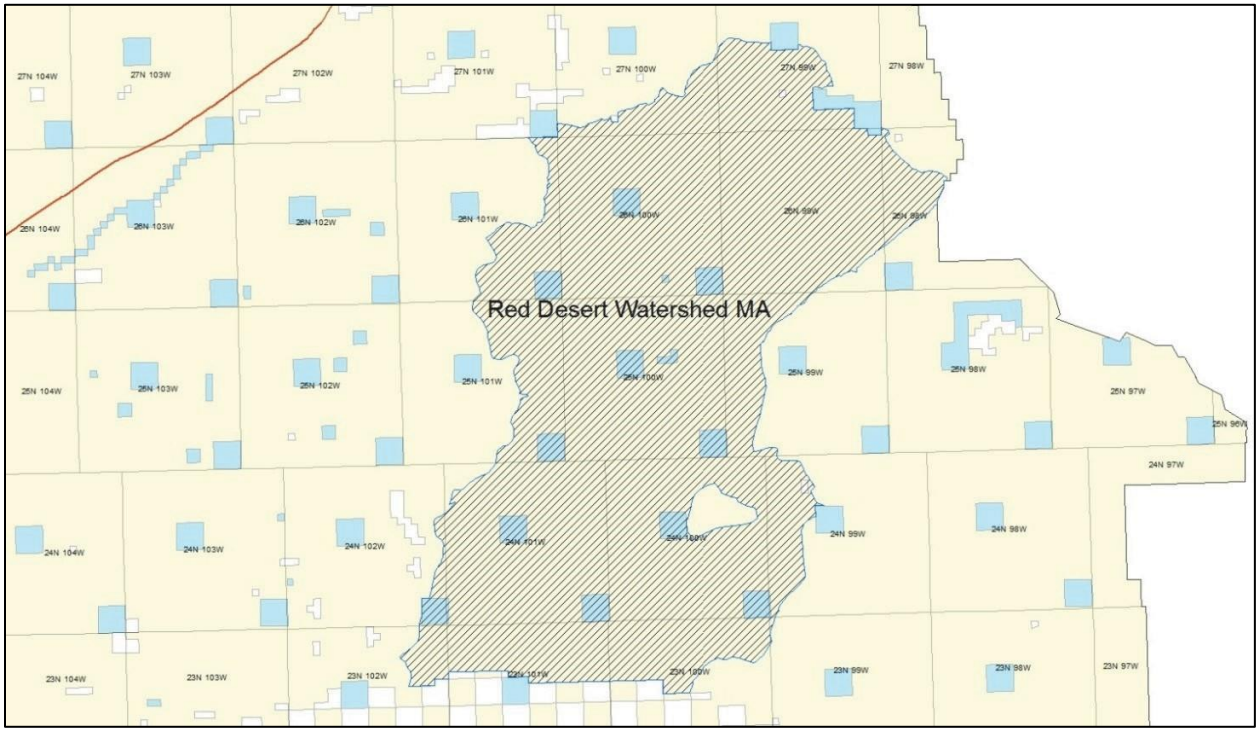
| **Relevance Value** | **Meets Value (Yes/No)** | **Rationale for Determination** |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Scenic values<br>Continental Divide National Scenic Trail | Yes | The entire area is inventoried as VRI Class II. Further the entire area is identified as a location where maintaining visual quality has high value. The area also contains part of the Continental Divide Connecting Side Trail portion of the CDNST. |
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Sage-grouse PHMA<br>Sublette mule deer migration corridor | Yes | The area contains big game crucial winter range and parturition habitat, as well as portions of the designated Sublette mule deer migration corridor. It contains a small portion of sage- grouse PHMA. |
| **A natural process or system:**<br>The Pinnacles Water recharge area<br>BLM sensitive plants | Yes | The area is important as a hydrologically closed basin along the Continental Divide, making it an aquifer recharge area. Further, the area contains habitat for the large-fruited bladderpod, a BLM sensitive species. In addition, the area contains The Pinnacles, a unique geologic feature. |
| **Natural hazards:**<br>None identified | No | -- |

| **Importance Value** | **Yes/No** | **Rationale for Determination** |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The northern boundary is the Connecting Side Trail to the CDNST giving it national significance. In addition, the area includes all of three WSAs and part of a fourth WSA. The area is also a hydrologically closed basin and contains the Pinnacles feature. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | This area includes the laterite layers of the badlands making up the south portion of the Oregon Buttes WSA. These easily erodible features are extremely fragile. The area includes the Pinnacles Geologic Feature, considered to be unique and distinctive, is also rare, fragile, and irreplaceable and would require additional protection measures. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area is a hydrologically closed basin. The area contains BLM sensitive plant species. The area contains portions of sage-grouse PHMA. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant wildlife, geology, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-17. Red Desert Watershed Area, Western Portion**




# C.12 WIND RIVER FRONT ACEC EVALUATION

## C.12.1 Wind River Front East Portion of the South Wind River ACEC Evaluation

| Area Considered | South Wind River |
|---|---|
| **General Location** | The area includes everything west of the Continental Divide Road, north of State Highway 28, and west of the Rock Springs Field Office boundary. |
| **General Description** | The area includes the west slopes of the Wind River Front. The Lander Cutoff of the Oregon Trail, the Sweetwater Wild and Scenic River (WSR), and the CDNST are all found in this area. |

| **Area Considered** | **South Wind River** |
|---|---|
| **Public Land Acres** | 86,937 |
| **Values Considered** | Historic: Lander cutoff of the Oregon Trail, prehistoric steatite quarry. Scenic: CDNST, WSR. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage- grouse PHMA, Fremont County rockcress, meadow pussytoes, limber pine. |

**History:** This is a new ACEC proposal.

(See Chapter 2 Management Action 7539)

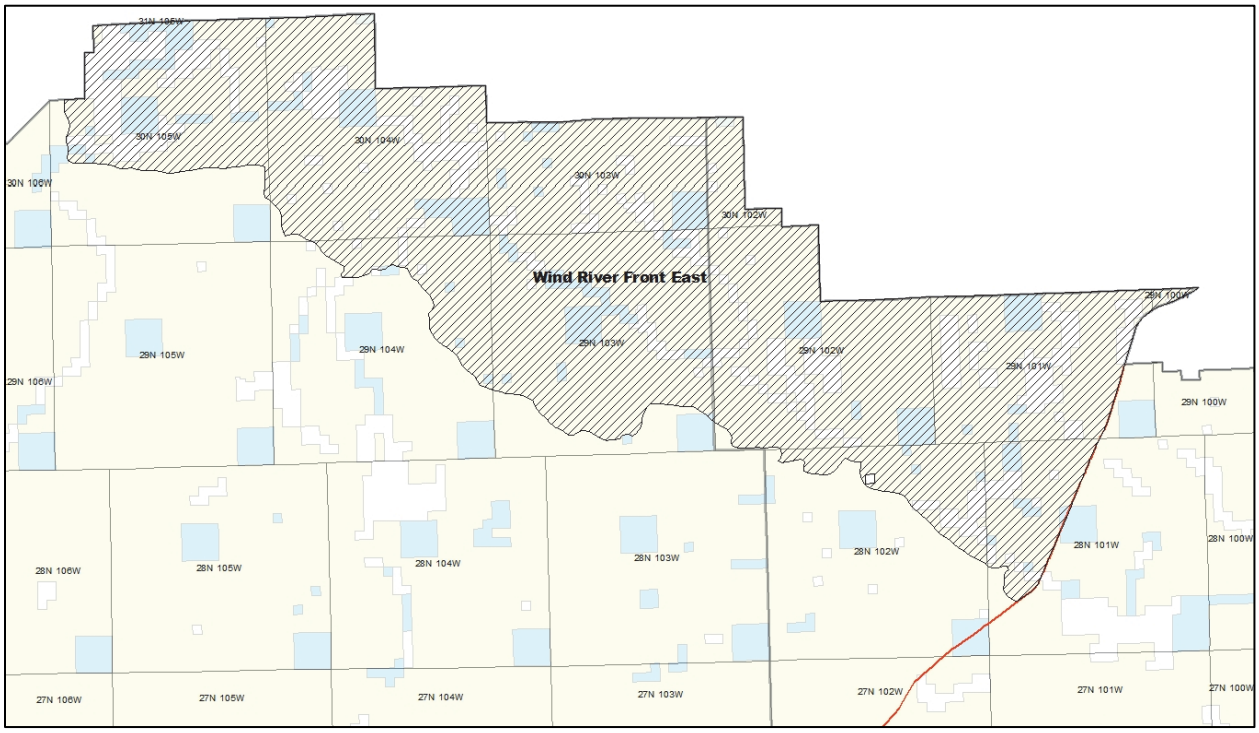
| **Relevance Value** | **Meets Value (Yes/No)** | **Rationale for Determination** |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Wind River Front SRMA<br>Lander Cutoff NHT<br>Continental Divide National Scenic Trail | Yes | The boundaries for this portion coincide with the Wind River Front East SRMA. The area includes portions of NHT, WSR and CDNST. |
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Big game parturition<br>Sublette mule deer migration corridor<br>Sage-grouse PHMA | Yes | This area contains large portions of big game crucial winter range and parturition habitat. The designated Sublette mule deer migration corridor also crosses the inventory unit. Most of the area contains sage-grouse PHMA. |
| **A natural process or system:**<br>Fremont county rockcress<br>Meadow pussytoes<br>Known regional aquifer recharge area | Yes | The slopes of the Wind River range provide important water recharge due to the location as the Continental Divide. In addition, there are known locations for BLM sensitive plant species, including Fremont county rockcress, meadow pussytoes and limber pine. |
| **Natural hazards:**<br>None identified | No | -- |

| **Importance Value** | **Yes/No** | **Rationale for Determination** |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area includes a prehistoric steatite quarry used by Native American Tribes. The area also contains high value scenic resources that are considered extremely important, including the CDNST. The area is also characterized by high recreation use. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The CDNST and NHT which cross this area are rare, and unique. The settings for these trails are extremely vulnerable to adverse change. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area contains NHT. The area contains BLM sensitive plant species. This area contains large portions of sage-grouse PHMA. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, wildlife, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-18. Map of the Wind River Front Area, East Portion**




## C.12.2 Wind River Front West Portion of the South Wind River ACEC Evaluation

| **Area Considered** | **Wind River Front West** |
|---|---|
| **General Location** | The area includes lands east of State Highway 191, north of the Township 27/28 line, and south and west of the Continental Divide Road and the northern boundary of the Rock Springs Field Office. |
| **General Description** | The area generally consists of high desert sagebrush plant communities and contains portions of the Big and Little Sandy River drainages. |
| **Public Land Acres** | 171,172 |
| **Values Considered** | Historic: Buckskin Crossing Cemetery. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA, bluehead sucker, flannelmouth sucker, round-tail chub, limber pine. |

**History:** This is a new ACEC proposal.

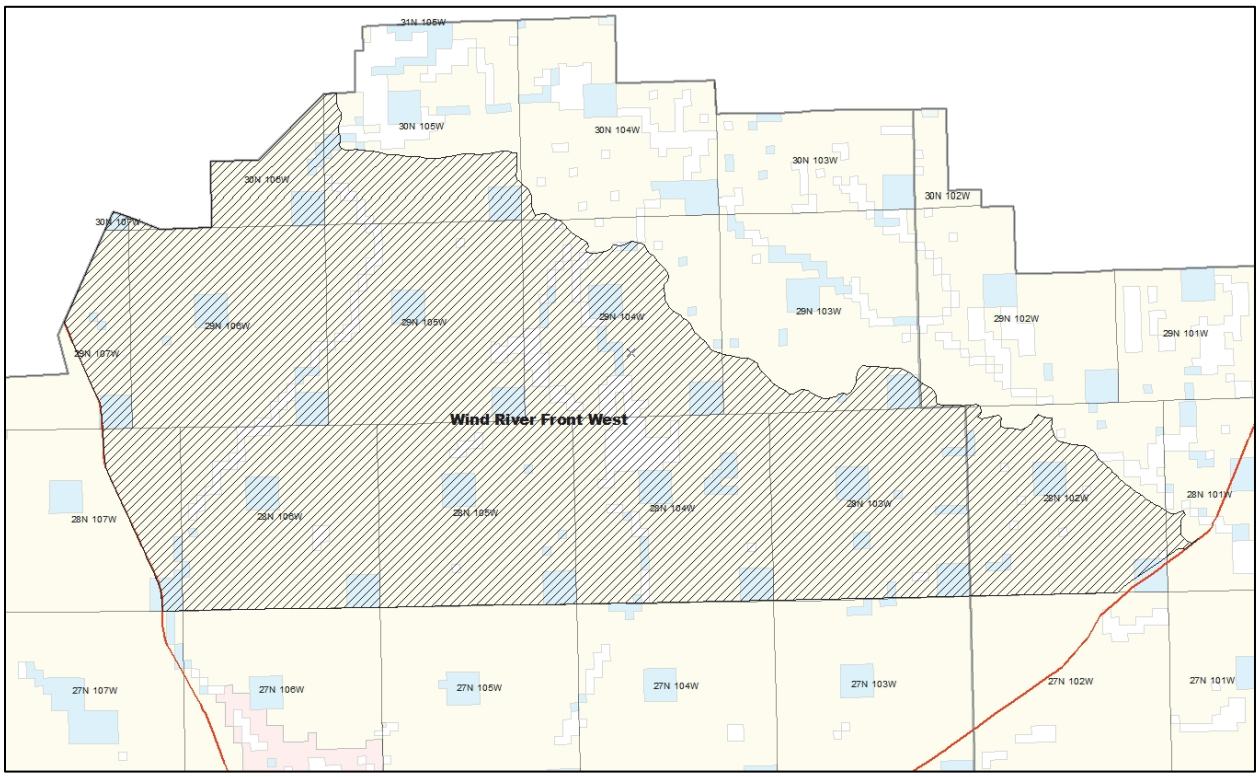
(See Chapter 2 Management Action 7538)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Recreation management (rivers)<br>Buckskin Crossing Cemetery | Yes | The area includes the Big Sandy River; a known fishing destination. In addition, there is a historic cemetery near where the Lander Cutoff crosses the Sandy River referred to as Buckskin Crossing Cemetery. |
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Big game parturition<br>Sage-grouse PHMA<br>Special Status fish species<br>Sublette mule deer migration corridor | Yes | The area contains large portions of big game crucial winter range and some big game parturition habitat. The unit also is entirely within sage-grouse PHMA, contains portions of the Big Sandy river, which has known populations of BLM sensitive fish species, including bluehead sucker, flannelmouth sucker, and round-tail chub. |
| **A natural process or system:**<br>None identified | No | -- |
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The entire area is within sage-grouse PHMA and contains large portions of big game crucial winter range. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area contains habitat for multiple Special Status Species, including sage-grouse PHMA, bluehead sucker, flannelmouth sucker, and round-tail chub. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The entire area is within sage-grouse core PHMA. The area contains habitat for BLM sensitive fish species. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, wildlife, and recreation values, and is evaluated for future management actions in the final EIS.

**Figure C-19. Map of Wind River Front Area, West Portion**




# C.13 SANDY RIVERS PORTION OF THE SOUTH WIND RIVER ACEC EVALUATION

| **Area Considered** | **Sandy Rivers (South Wind River)** |
|---|---|
| **General Location** | This area includes lands east of U.S. Highway 191 near the town of Farson, WY, north of U.S. Highway 28, and south of the Township 27/28 line. |
| **General Description** | The area includes the longest intact sections of the Oregon, California, Pony Express, and Mormon Pioneer NHTs and several nationally significant associated sites, including The Parting of the Ways. The area is a known location for aquatic Special Status Species. |
| **Public Land Acres** | 117,184 |
| **Values Considered** | Cultural: NHT. Wildlife: big game crucial winter range, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA, bluehead sucker, flannelmouth sucker, and round-tail chub. Paleontological resources: middle Eocene fossil resources. Scenic: panoramic landscape. |

**History:** This is a new ACEC proposal.

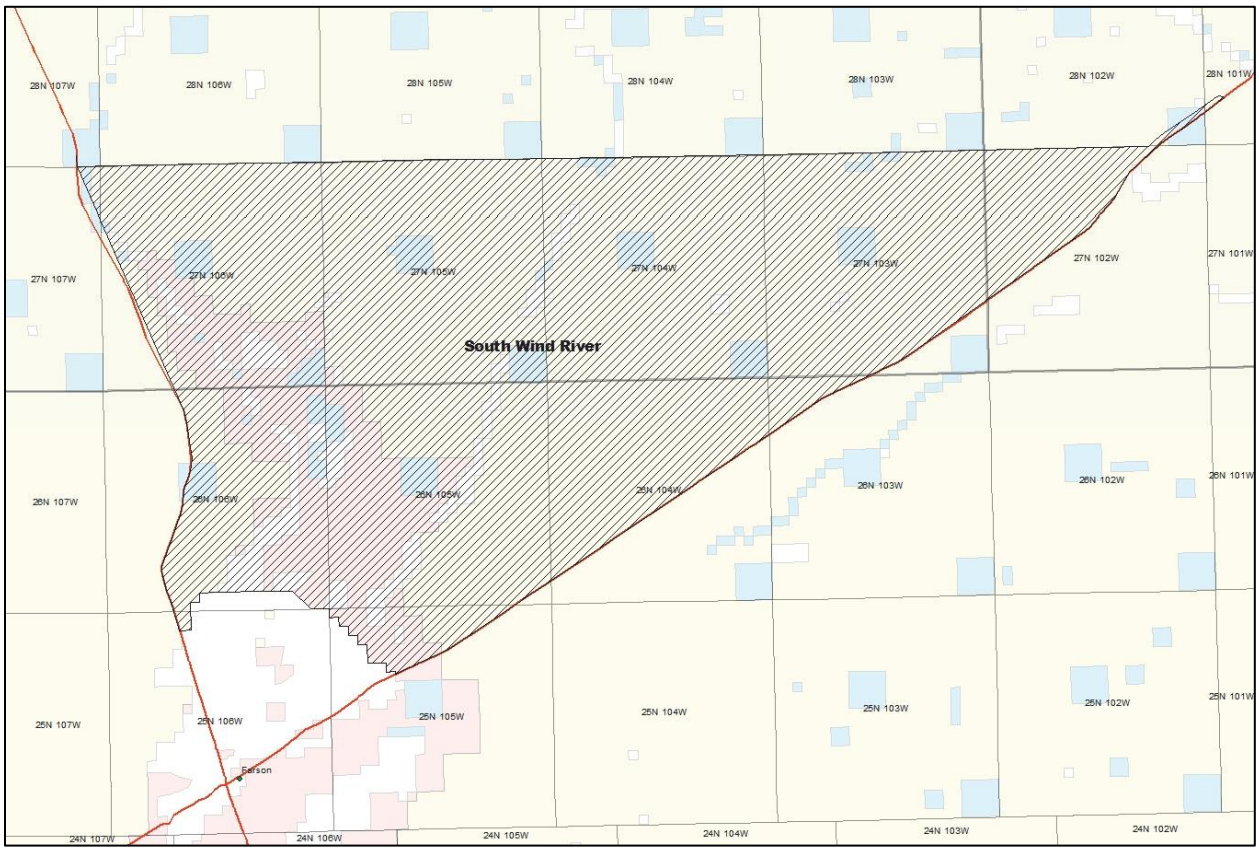
| **Relevance Value** | **Meets Value (Yes/No)** | **Rationale for Determination** |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>NHTs<br>Historic tourism recreation use | Yes | The most intact sections of the Oregon, California, Pony Express, and Mormon Pioneer trails cross through this area. The area also includes several nationally significant sites associated with the trails, including The Parting of the Ways. As a result, the area is extremely important for heritage tourism. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>BLM sensitive species Sage-grouse PHMA<br>Big game crucial winter range<br>Sublette mule deer migration corridor | Yes | The area contains several BLM sensitive species, including sage-grouse PHMA, bluehead sucker, flannelmouth sucker, and round-tail chub. The area is also big game crucial winter range habitat and is crossed by portions of the designated Sublette mule deer migration corridor. |
| **A natural process or system:**<br>Aquifer recharge area<br>Paleontology | Yes | This area is an important aquifer recharge area. In addition, surface geology includes the Laney member of the Green River formation, a study location for the middle Eocene fossil resources. |
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | This area contains four NHTs and other sites including The Parting of the Ways. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area contains large expanses of undisturbed landscape. This situation is described in the BLM Visual Resource Management Manual as a panoramic landscape and is identified in the VRI as a location where maintaining visual quality has high value. The area is also crossed by the designated Sublette mule deer migration corridor. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area contains NHT, sage-grouse PHMA, and BLM sensitive fish species. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, wildlife, paleontological, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-20. Map of the Sandy Rivers Area**




# C.14 BIG SANDY OPENINGS ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **Big Sandy Openings** |
| **General Location** | T 30 N R 104 W sec 5, 6, 7 and 8. |
| **General Description** | The area is a section of the Big Sandy River as it crosses from the National Forest to BLM managed and includes half a mile on either side of the high-water mark. |
| **Public Land Acres** | 757 |
| **Values Considered** | Scenic: visual variety. Wildlife: big game crucial winter range, big game parturition. Special Status Species: sage-grouse PHMA. |

**History**: The area meets relevance and importance criteria and could be considered as an independent ACEC or be managed as part of the (proposed) South Wind River ACEC.

(See Chapter 2 Management Action 7563)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:** Scenic | Yes | The river and associated canyon are considered pristine; that is, the area appears unchanged by human interaction. The river and canyon system through this 1 ½ miles present a high degree of visual variety. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>Big game crucial winter range<br>Big game parturition<br>Sublette mule deer migration corridor<br>Sage-grouse PHMA | Yes | The inventory unit includes big game crucial winter range and parturition habitat. It also contains a portion of the designated Sublette mule deer migration corridor. The unit also contains sage-grouse PHMA. |
| **A natural process or system:**<br>None identified | No | -- |
| **Natural hazards:**<br>Pine bark beetle | Yes | The area includes large areas of beetle-killed pine trees and as such is a significant hazard for fire. |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | No | -- |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | This is an undeveloped area where retaining the visual setting has a high value. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area includes sage-grouse PHMA habitat. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant wildlife and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-21. Map of the Big Sandy Openings Area**

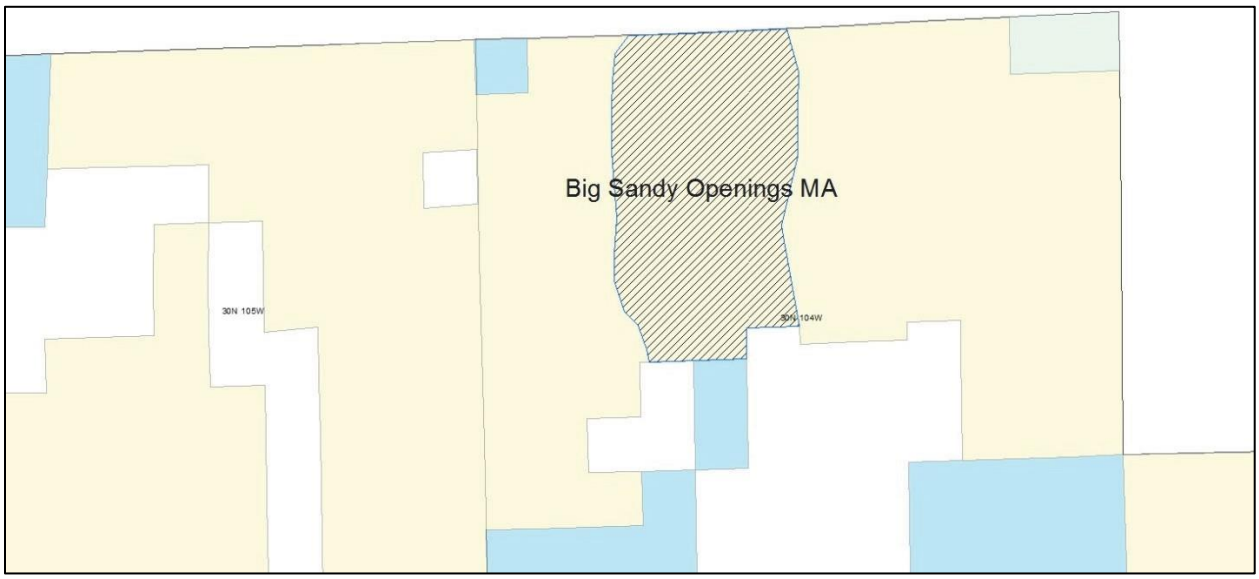



**Figure C-22. Big Sandy Openings**

# C.15 SOUTH PASS HISTORIC LANDSCAPE ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **South Pass** |
| **General Location** | The lands east of U.S. Highway 28, north of the Oregon Buttes and Honeycomb Buttes WSA boundary roads and the White Horse Creek road, west of the field office boundary, and south of Slaughterhouse Creek. |
| **General Description** | The area includes four NHTs where they crossed the Continental Divide at the only location available to do so during the westward emigration period. |
| **Public Land Acres** | 171,300 |
| **Values Considered** | Cultural: four National Historic Trails including the Oregon Trail, the California Trail, the Mormon Pioneer Trail and the Pony Express Trail, National Historic Landmark, Tribal significance. Scenic: National Scenic Trail. Wildlife: designated Sublette mule deer migration corridor, big game crucial winter range and parturition habitat. Special Status Species: sage-grouse PHMA, limber pine, meadow pussytoes, Fremont County rockcress. |

**History**: The area was identified in the Green River RMP as an ACEC, meeting relevance and importance criteria for historic and scenic values of national significance and for outstanding geographic features. The values were thought to need special emphasis to be effectively managed. The ACEC designation was carried forward in the Jack Morrow Hills process. The proposed boundary would be altered to take in the valleys between the existing boundaries and the WSA in the south and the existing boundaries and the rim of Slaughterhouse Gulch. This will allow boundaries to match the ACEC boundary in the Lander Field Office.

(See Chapter 2 Management Action 7498)

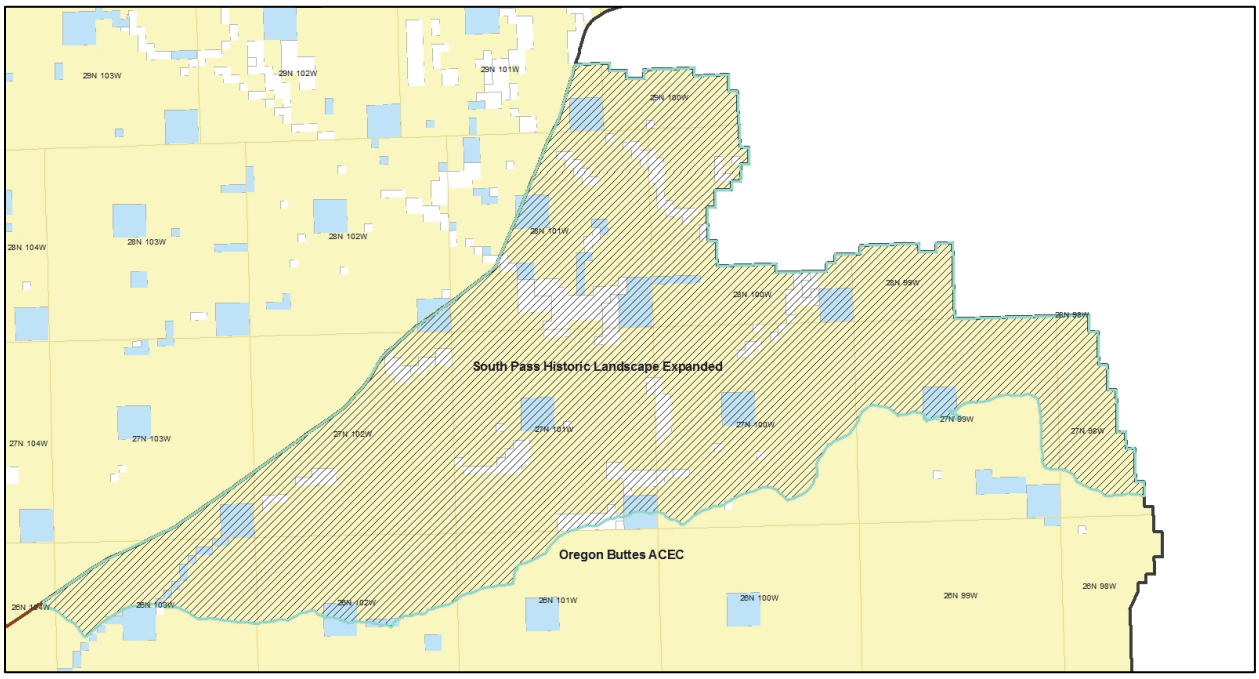
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Cultural<br>Scenic | Yes | The area contains South Pass, the only location where the mountains could be crossed by wagons and handcarts during the westward emigration period of U.S. history. The area also takes in several of the visual landmarks used to navigate the trail system. These landmarks and surrounding landscape are part of the panoramic landscape associated with the Continental Divide.<br>The South Pass National Historic Landmark was designated in 1961. Four nationally significant NHTs cross through this area. South Pass is centrally located in the unit. Three known human burials along with countless unknown burials and many sites associated with the westward emigration.<br>This area is also of high significance currently, historically, and prehistorically to the Native American Tribes. |
| **A fish and wildlife resource:**<br>Sublette mule deer migration corridor<br>Big game crucial winter range<br>Big game parturition<br>Sage-grouse PHMA | Yes | The area is part of the designated Sublette mule deer migration corridor. It is also known big game crucial winter range and parturition habitat. In addition, it is sage-grouse PHMA. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A natural process or system:** BLM sensitive plant species aquifer recharge area | Yes | This area contains BLM Sensitive Species including limber pine, meadow pussytoes and Fremont County rockcress.<br>In addition, due to the proximity of the Continental Divide the area is a known aquifer recharge area. |
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The NHTs and South Pass are both on the NRHP due to their national significance. The south boundary is the CDNST connecting side trail. The designated South Pass National Historic Landmark is within this area. This area is also of high significance to Native American Tribes. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area contains populations of BLM sensitive plant species, including limber pine, meadow pussytoes and Fremont County rockcress. The trail segments include several known and many unknown human burial sites, as well as other trail related sites. The area is also sage-grouse PHMA and includes portions of the designated Sublette mule deer migration corridor. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The National Scenic and Historic Trails and the South Pass National Historic Landmark warrant extra protection in order to preserve their scenic value and context. Protections are in place for sage-grouse PHMA. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant cultural, scenic, and wildlife values, and is evaluated for future management actions in the final EIS.

**Figure C-23. Map of the South Pass Historic Landscape Expanded Area**




# C.16 SPECIAL STATUS PLANT ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **Special Status Plants** |
| **General Location** | Identified locations for Special Status plant species and their habitats. |
| **General Description** | Special Status plant species and habitats throughout the planning area. |
| **Public Land Acres** | 1,122 |
| **Values Considered** | Special Status plants including BLM sensitive and species being considered for listing under the Endangered Species Act (ESA). |

**History**: The Special Status Plant ACEC was reviewed in the Green River RMP and found to meet relevance and importance criteria for natural processes or systems and importance criteria of more than local significant qualities, fragile, sensitive, rare and vulnerable to adverse change, and warrants protection to satisfy national priority concerns and carry out the mandates of FLPMA. The values in this area need special emphasis to be effectively managed. The Special Status plant areas known to exist in the Jack Morrow Hills area were reevaluated for that effort and designation was retained for species in that area.

(See Chapter 2 Management Action 7508)

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:** None identified | No | -- |
| **A fish and wildlife resource:** None identified | No | -- |

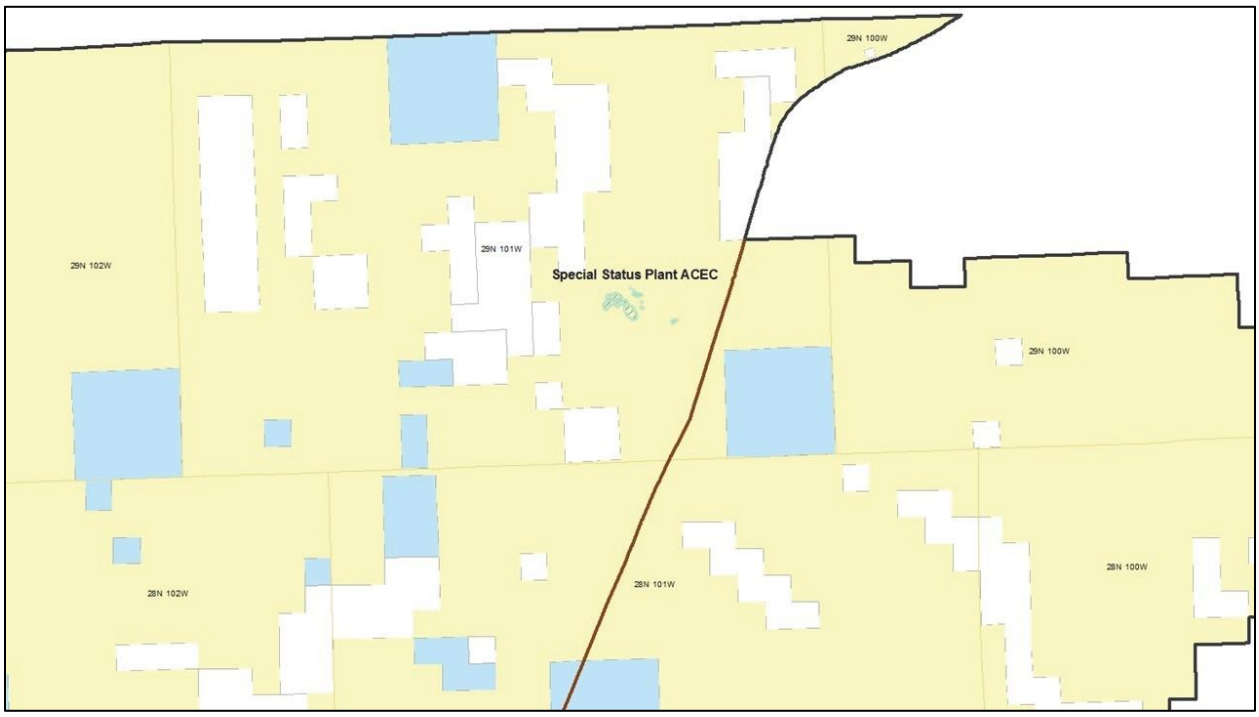
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A natural process or system:** Special status plant species | Yes | The areas that are known to contain Special Status plant species and the surrounding habitat necessary to maintain them. |
| **Natural hazards:** None identified | No | -- |

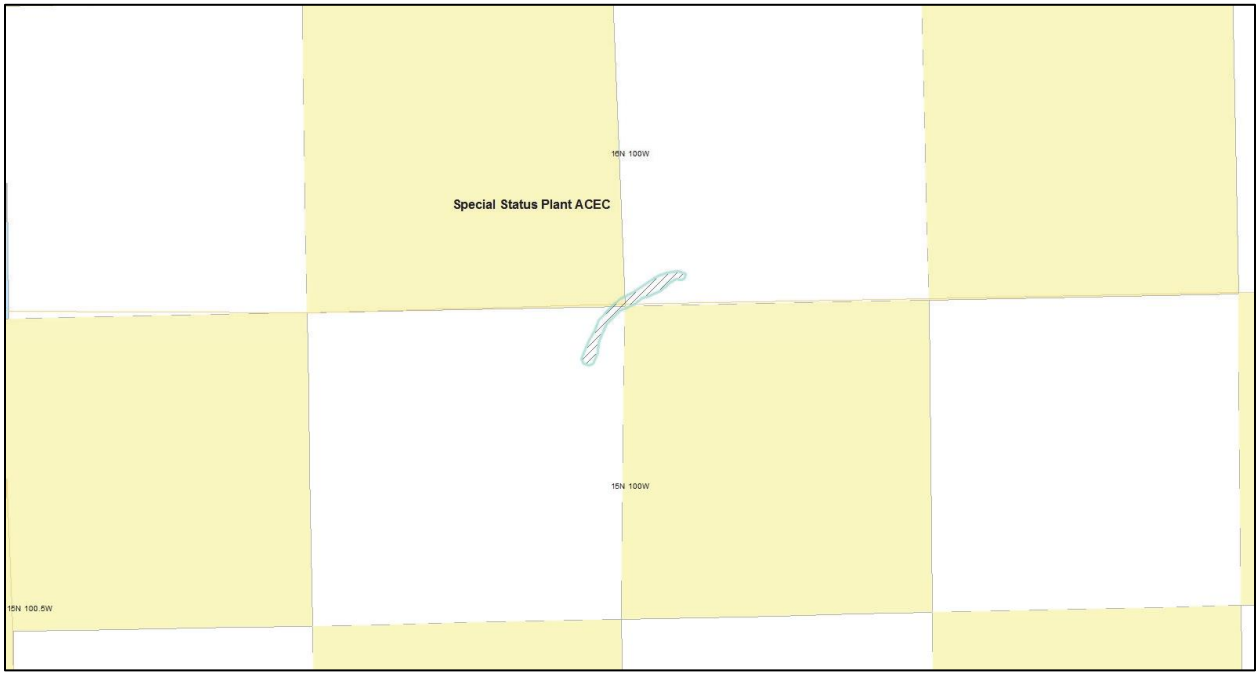
| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | Special Status Species are considered of state-wide or national significance, including species that have been petitioned for listing as threatened or endangered under the ESA. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | Species are designated as Special Status due to their fragile, sensitive, and rare nature. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | These areas are protected in order to prevent the species from being listed as threatened or endangered under the ESA. The designation as an ACEC and associated protections were identified in recent ESA listing decisions as factors preventing the need for listing. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for Special Status Species values and is evaluated for future management actions in the final EIS.

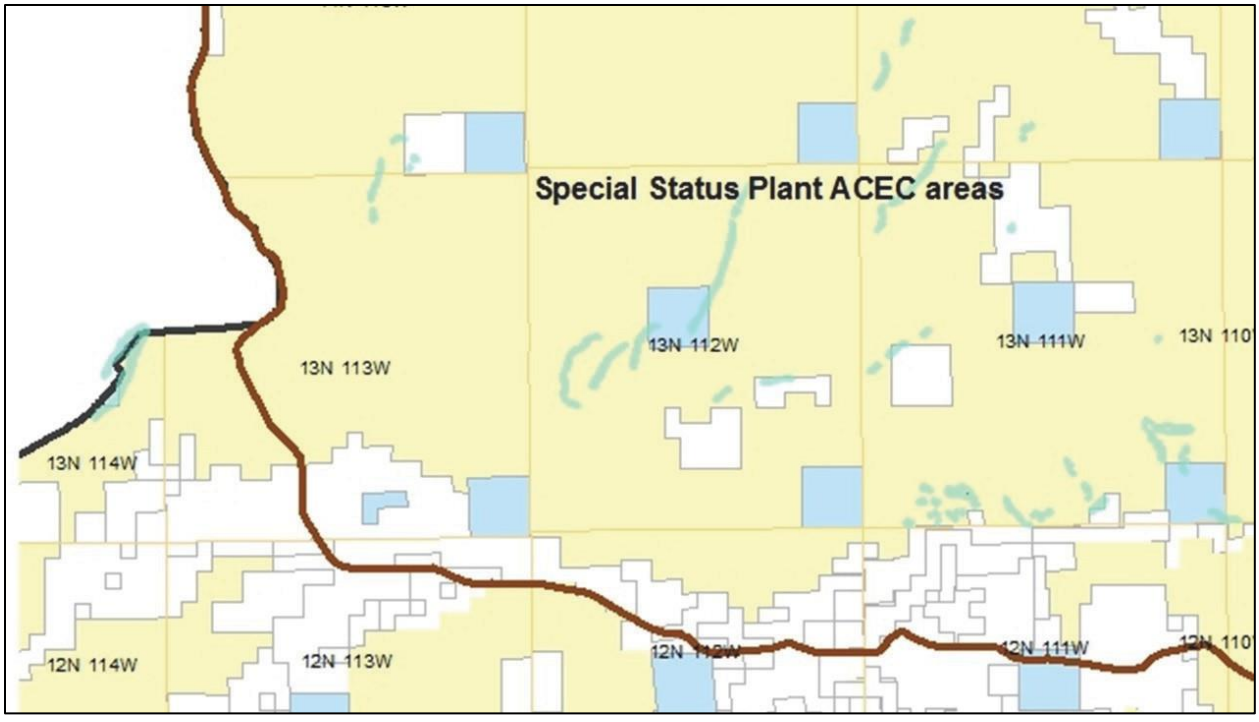
Current listings found in the Rock Springs Field Office include *Arabis pusilla* (Fremont County rockcress), *Astragalus proimanthus* (precocious milkvetch), *Descurainia torulosa* (Wyoming tansymustard), *Thelesperma caespitosum* (Green River greenthread), *Thelesperma pubescens* (Uinta greenthread), and *Townsendia microcephala* (Cedar Mountain Easter daisy). This proposed area also includes *Lesqurella macrocarpa* (large-fruited bladderpod) and the basin big sage/lemon scurfpea plant community. These species could be removed from the list or other species may be added to the list as Special Status Species listings change over time.

## Figure C-24. Maps of the Special Status Plant ACEC




Special Status Plant ACEC
17N 104W
17N 103W


Special Status Plant ACEC areas
13N 113W
13N 112W
13N 111W
13N 110
13N 114W
12N 114W
12N 113W
12N 111W

# C.17 STEAMBOAT ACEC EVALUATION

| **Area Considered** | **Steamboat Mountain Area** |
|---|---|
| **General Location** | This area includes lands east of U.S. Highway 191, north of the checkerboard lands, west of the Continental Divide, and south of U.S. Highway 28, exclusive of other ACEC boundaries. |
| **General Description** | This area encompasses several wildlife and Special Status Species habitat. In addition, there are significant visual and cultural resources throughout the area. |
| **Public Land Acres** | 268,202 |
| **Values Considered** | Cultural: Tribal significance, Tri-territory Historic Site. Scenic: Steamboat Mountain. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA, limber pine, basin big sagebrush/lemon scurfpea communities. |

**History**: The Steamboat area was evaluated in the Green River RMP and found to meet relevance and importance criteria for wildlife and cultural values. Unique habitat features exist which are found nowhere else in the planning area. Special emphasis was considered to be required for effective management. A portion of this proposed expansion was recommended to be retained as an ACEC. In the Jack Morrow Hills effort, the Steamboat expansion was reviewed again. The expansion was found to meet relevance and importance criteria for wildlife, cultural values, and natural systems, and determined to require special management to be effectively managed. The area originally identified in the Green River RMP was retained with the Jack Morrow Hills effort.

(See Chapter 2 Management Action 7516)

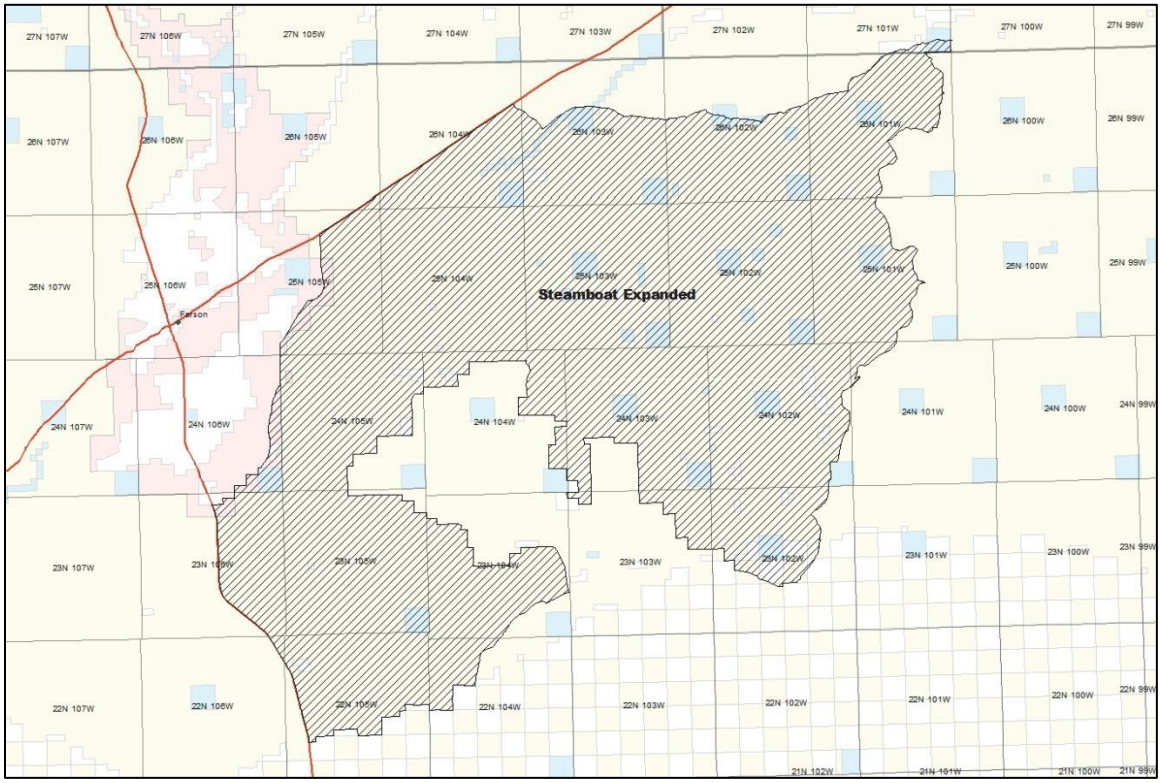
| **Relevance Value** | **Meets Value (Yes/No)** | **Rationale for Determination** |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Indian Gap and associated trail Tri-territory Site<br>Scenic | Yes | The area includes the Indian Gap and associated Indian Gap Trail used by Tribes to travel between Fort Washakie and Fort Hall and access the White Mountain Petroglyphs and Boar's Tusk sites for traditional cultural purposes. The trail has high cultural significance to the Tribes.<br>This area includes the Tri-territory Historic Site marking a historic boundary between The Louisiana Purchase, Northwest Territory, and Mexico.<br>The entire area was inventoried at Visual Resource Inventory Classes I (WSA only) and II, and maintaining visual integrity has high value. |
| **A fish and wildlife resource:**<br>Big game winter and parturition habitat<br>Big game parturition closure<br>Sublette mule deer migration corridor<br>Sage-grouse PHMA | Yes | The area has crucial winter range and parturition habitat for big game species. It is also includes portions of the designated Sublette mule deer migration corridor. In addition, the entire area is listed as sage-grouse PHMA. This area contains the only seasonal closure for big game parturition in the planning area. |
| **A natural process or system:**<br>Special Status plant species<br>Volcanic features and rare earth mineral potential | Yes | The area contains relic plant communities. The area also has known locations for basin big sagebrush/lemon scurfpea communities, limber pine, and old growth sagebrush communities.<br>In addition, the area contains several locations where volcanic features are present and has been identified as potential for rare earth minerals. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The area includes the Tri-territory Historic Site, which is a site of national significance. The area also has a higher than normal density of cultural sites including human burials and pit-house features.<br>The inventory unit also includes portions of the designated Sublette mule deer migration corridor as well as sage-grouse PHMA. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | These unique plant communities are by their very nature considered fragile, sensitive, and rare.<br>The inventory unit includes the only big game parturition closure in the planning area to provide protection for big game during the birthing season. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The area includes the Tri-territory Historic Site, which is a site of national significance. The area also has a higher than normal density of cultural sites including human burials and pit-house features. The sage-grouse PHMA area and Special Status plant areas are considered national priority concerns. Interior Secretarial Order 3362 mandates protections for areas such as the designated Sublette mule deer migration corridor. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant historic, cultural, wildlife, and scenic values, and is evaluated for future management actions in the final EIS.

**Figure C-25. Map of the Steamboat Expanded Area**




# C.18 WHITE MOUNTAIN PETROGLYPHS ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **White Mountain** |
| **General Location** | T 22 N R 105 W sec 11 and 12. |
| **General Description** | White Mountain Petroglyphs Rock Art Site. |
| **Public Land Acres** | 21 |
| **Values Considered** | Cultural: White Mountain Petroglyphs/rock art. Wildlife: raptor nesting, big game crucial winter range. Special Status Species: sage-grouse PHMA. Recreation: developed site with off-site facilities. |

**History**: The area was evaluated in the Green River RMP and found to meet relevance and importance criteria for cultural values of national significance when the area was originally designated an ACEC. The designation was retained.

(See Chapter 2 Management Action 7530)

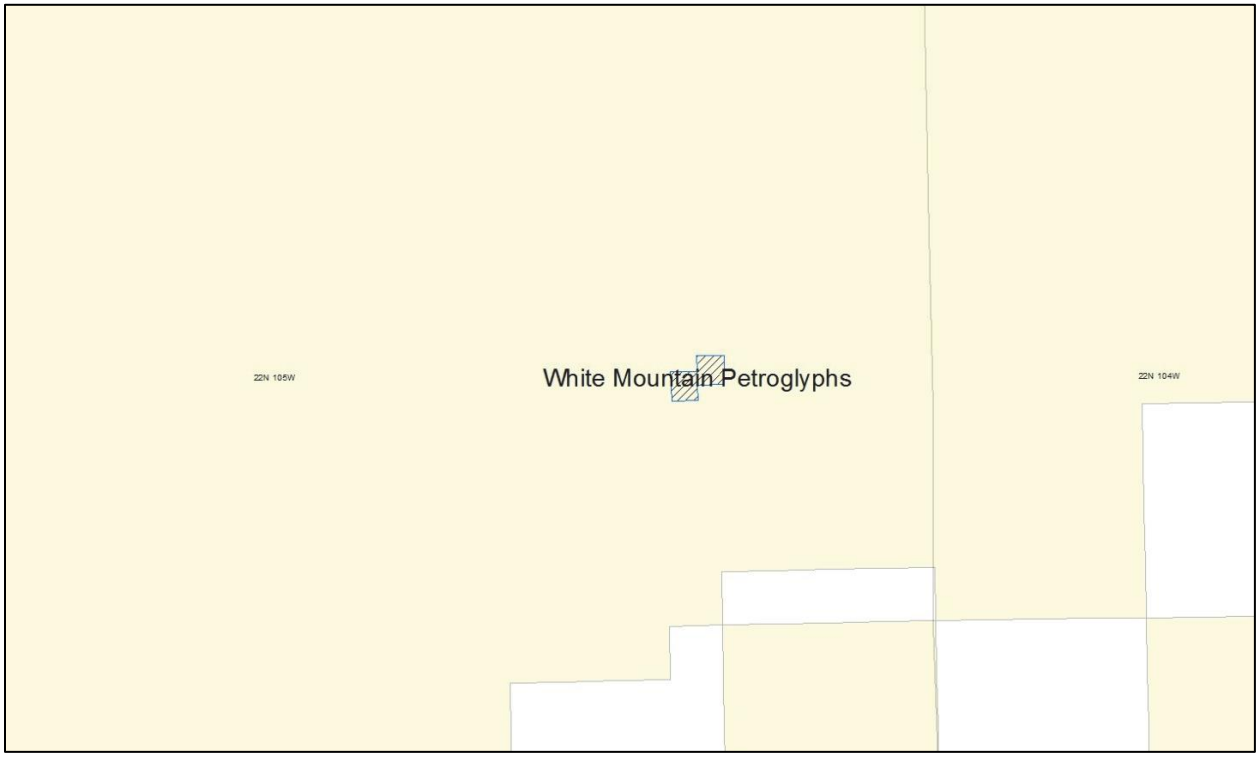
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>Rock art site<br>Native American sacred and respected place<br>High recreation use area | Yes | The White Mountain Petroglyphs is a Native American sacred and respected place of significance to Tribes and is still used as a TCP. In addition, the site has been developed as a recreation site where visitor controls have been installed to protect the site from vandalism and improve the visitor experience. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A fish and wildlife resource:**<br>Raptor nesting<br>Big game crucial winter range<br>Sage-grouse PHMA | Yes | The area has raptor nests above the rock art panels, that are often active. In addition, several of the big game species carved into the rock art panels frequent the area still, and the area is within big game crucial winter range. In addition, the area is sage-grouse PHMA. |
| **A natural process or system:**<br>White Rocks cave | Yes | The rock art panels also include a shallow cave eroded out of the sandstone. The presence of this cave increases the significance of this site as a TCP. |
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The rock art panels have tribal significance, as well as having special meaning and worth. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The rock art and the cave, being sandstone, are fragile and sensitive. Rock art sites are by definition rare, irreplaceable, and vulnerable to adverse change. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | The White Mountain Petroglyphs site is a Native American sacred and respected place of significance to several Tribes and is still used as a TCP. In addition, the site has been developed as a recreation site where visitor controls have been installed to protect the site from vandalism and improve the visitor experience. The area is within sage-grouse PHMA. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for a significant cultural, wildlife, and recreation values, and is evaluated for future management actions in the final EIS.

**Figure C-26. Map of the White Mountain Petroglyphs ACEC**




# C.19 EAST SAND DUNES – RED LAKE ACEC EVALUATION

| | |
|---|---|
| **Area Considered** | **East Sand Dunes – Red Lake** |
| **General Location** | T 23 N R 97 W, T 23 N R 98 W, T 23 N R 99 W and T 23 N R 100 W. |
| **General Description** | The area includes the East Sand Dunes and Red Lake WSAs, both of which have outstanding scenic, recreation, and wildlife values. The area is also part of the Greater Sand Dunes system providing opportunities for scientific study of natural sand dunes. |
| **Public Land Acres** | 22,338 |
| **Values Considered** | Wildlife: big game crucial winter range. Scientific study: study of active dunes and perennial wetlands. Geology: active sand dunes. |

**History:** This is a new evaluation based on a citizen proposed ACEC.

(See Chapter 2 Management Action 7548)

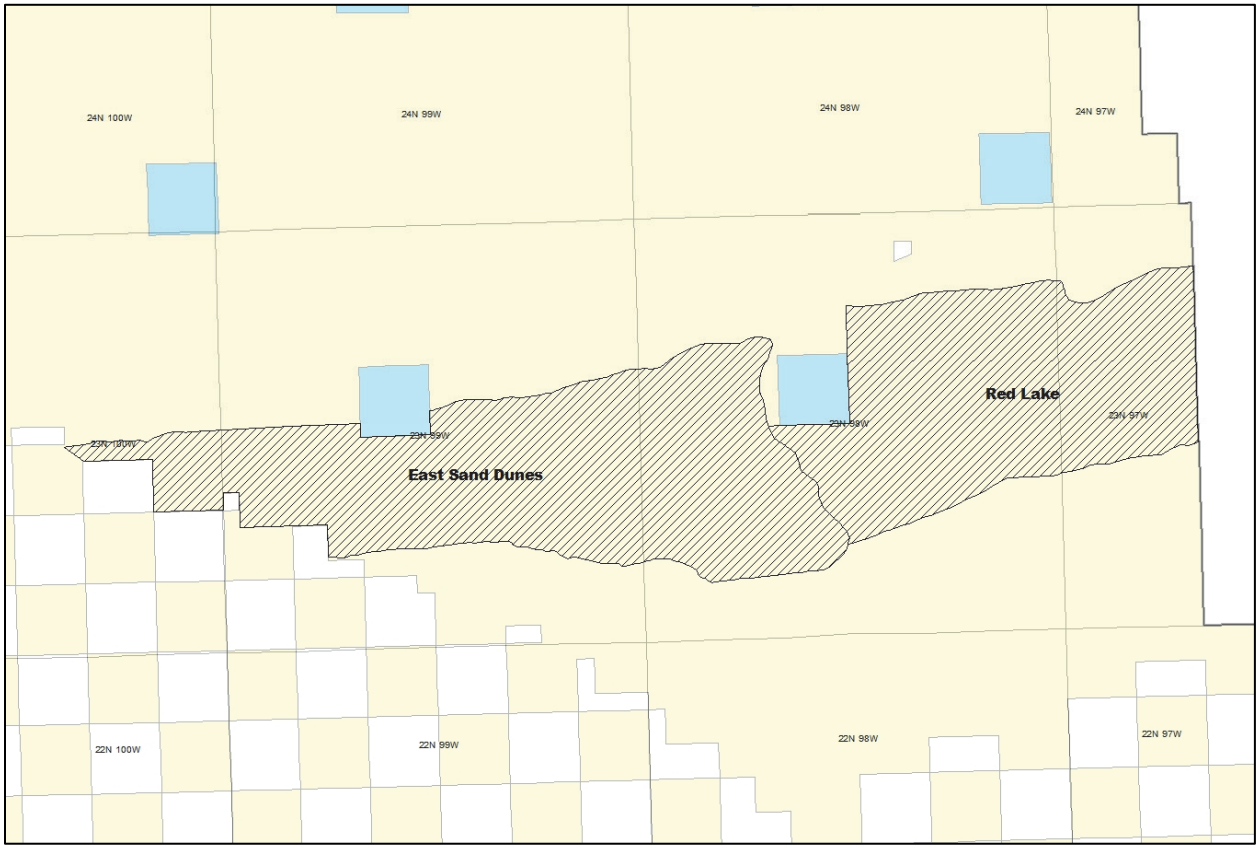
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:** None identified | No | This area does not contain any known significant or important historic or cultural resources. Because this area contains active sand dunes, there is high potential for cultural resources. |
| **A fish and wildlife resource:** Big game crucial winter range | Yes | This area contains big game crucial winter range habitat. |

| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A natural process or system:** Greater Sand Dunes system | Yes | This area is a part of the Greater Sand Dunes system. The combination of active dunes and cold environment produces many unique conditions. The area is of significant scientific value for the study of active sand dunes, the associated perennial wetlands that are directly linked to the active dunes, and how they interact in response to weather and climate. |
| **Natural hazards:** None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | No | While there is potential for cultural resources, these resources have not been identified. Known resource values in the area do not rise to the level of significance to meet this criterion. Active dunes are valuable for scientific study. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The area, being an active sand dune, is susceptible to motor vehicle trespassing. Any resource values with intact provenience within the dunes would be destroyed by motor vehicle trespassing. The remnant dunal ponds are unique ecosystems useful for scientific study. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | No | The boundary of this area is the same as the two WSAs. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: This nomination meets the relevance and importance criteria for significant wildlife and scientific study values, and is evaluated for future management actions in the final EIS.

**Figure C-27. Map of the East Sand Dunes – Red Lake Area**




# C.20 BIG GAME MIGRATION CORRIDOR ACEC EVALUATION

| Area Considered | Big Game Migration Corridor |
|---|---|
| General Location | T 20 N R 101, 102 W sec Various; T 21 N R 101,102,103,104 W sec Various; T 22 N R 102, 103, 104 W sec Various; T 23 N R 102, 103, 104 W sec Various; T 24 N R 101, 102, 103, 104 W sec Various; T 25 N R 100, 101, 102, 103, 104 W sec Various; T 26 N R 100, 101, 102, 103, 104 W sec Various; T 27 N R 99, 100, 101, 102, 103, 104 W sec Various; T 28 N R 99, 101, 102, 103, 104 W sec Various; T 29 n R 101, 102, 103, 104, 105 W sec Various; T 30 N R 102, 103, 104, 105 W sec Various. |
| General Description | The 150-mile Red Desert to Hoback migration corridor crosses private, state trust and National Forest land, but a significant portion of the corridor is public land managed by the BLM. All the public land sections are within the administration of the High Desert District. Most are within the Rock Springs Field Office and are known as the Red Desert and Big Sandy sections of the corridor. Researchers have estimated that roughly 500 deer leave winter range in the Red Desert to travel to the Hoback Basin. Along the way, they pick up 4,000-5,000 other deer that winter in the Prospect Mountains. |
| Public Land Acres | 224,402 |
| Values Considered | Cultural: NHT. Wildlife: designated Sublette mule deer migration corridor, big game crucial winter range, big game parturition. Special Status Species: sage- grouse PHMA. |

**History:** This is a new evaluation based on a citizen proposed ACEC.

(See Chapter 2 Management Action 7555)

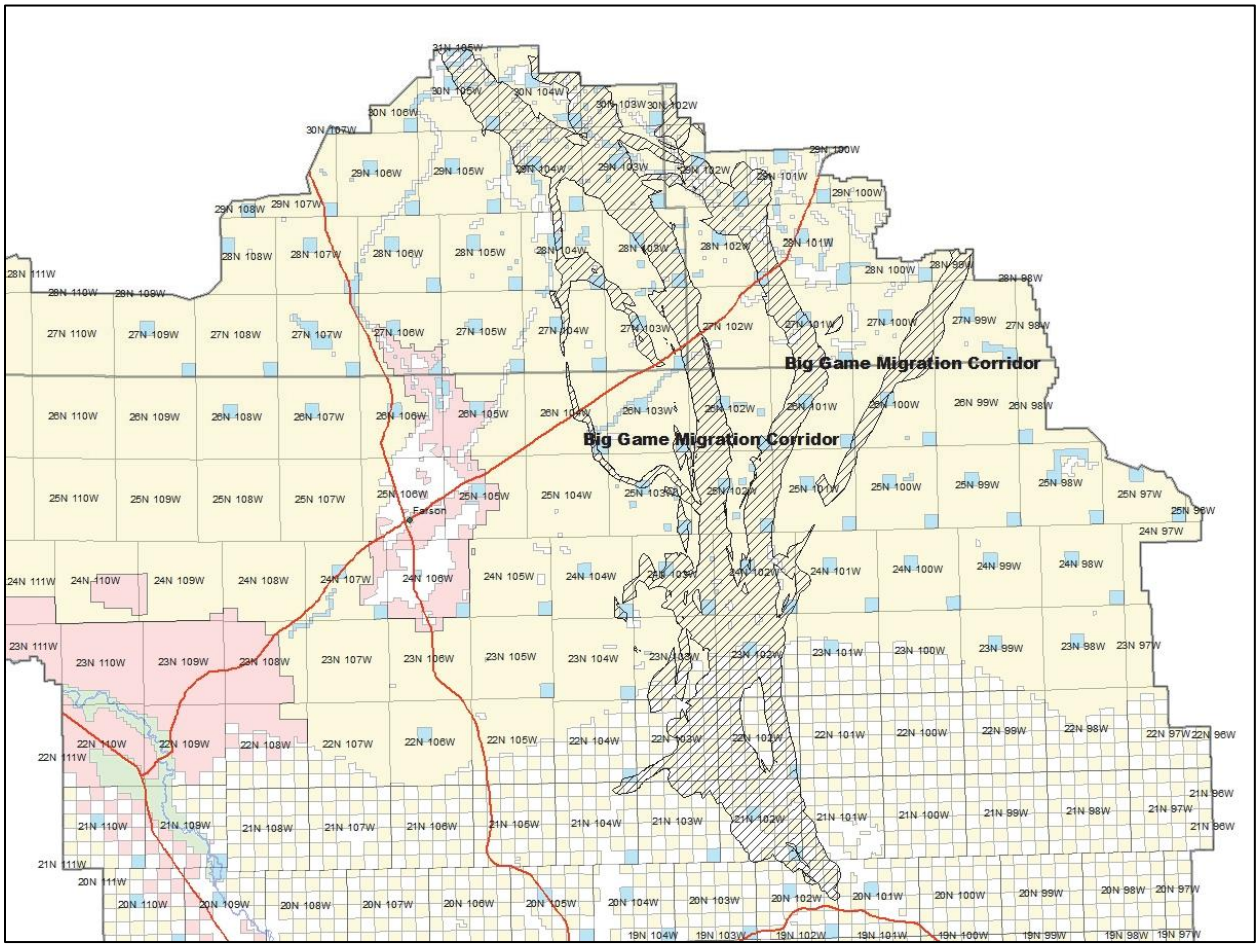
| Relevance Value | Meets Value (Yes/No) | Rationale for Determination |
|---|---|---|
| **A significant historic, cultural, or scenic value:**<br>WSAs<br>Historic landscapes<br>NHTs | Yes | The corridors include portions of the Oregon Buttes, White Horse Creek, and Honeycomb Buttes WSAs. These areas have been set aside, in part, because of high scenic value.<br>The corridors cross the South Pass Historic Landscape, the South Pass National Historic Landmark and several sections of the Emigrant Trail as well as the Natural Corrals Cultural Site and other significant cultural sites. The Natural Corrals and the NHT are listed with the NRHP. |
| **A fish and wildlife resource:**<br>Sublette mule deer migration corridor<br>Sage-grouse PHMA | Yes | The area is a significant migration corridor for large game species. The area also contains sage-grouse PHMA. |
| **A natural process or system:**<br>Wind River Front SMA<br>Basin big sagebrush/lemon scurfpea plant communities<br>BLM sensitive plants | Yes | The corridors include the Wind River Front Special Management area, an area set aside because of the high scenic value and recreation resource use.<br>The corridor includes portions of basin big sagebrush/lemon scurfpea plant communities. The corridors also include populations of two BLM sensitive plant species, meadow pussytoes and large-fruited bladderpod. |
| **Natural hazards:**<br>None identified | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. | Yes | The scenic values present in the corridors are considered significant and essential for recreation, public appreciation, and tourism.<br>The Emigrant Trail is a part of the American Westward expansion. It is a unique and irreplaceable resource.<br>The migration corridor is the longest known mule deer migration corridor in the U.S. and is traveled by up to 5,000 deer twice each year. |
| Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. | Yes | The basin big sagebrush/lemon scurfpea communities are fragile, rare, and vulnerable to adverse change. The meadow pussytoes and large-fruited bladderpod populations and their habitat are fragile, sensitive, and vulnerable to adverse change.<br>The Emigrant Trail and the South Pass are unique and irreplaceable.<br>The area is also sage-grouse PHMA. |
| Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA. | Yes | Protection of scenic values and preservation and management of the Historic Trails is recognized as a national priority concern, which contains portions of the migration corridor.<br>The area contains protections related to various other resources, including sage-grouse PHMA, raptor nesting, trails and other cultural sites, the Superior aquifer recharge area, ACECs and WSAs. |
| Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare. | No | -- |

| Importance Value | Yes/No | Rationale for Determination |
|---|---|---|
| Poses a significant threat to human life and safety or to property. | No | -- |

**Findings**: The corridors meet relevance criteria for wildlife resources but also for scenic and cultural resources and rare plant communities, and is evaluated for future management actions in the final EIS.

## Figure C-28. Map of the Big Game Corridor



# APPENDIX D—FEDERAL OIL AND GAS OPERATIONS ON SPLIT ESTATE LANDS

## D.1 PURPOSE

The purpose of this appendix is to summarize the Bureau of Land Management's (BLM) procedures for considering proposals to conduct exploration and production operations on split estate federal oil and gas leases. This appendix is provided for information purposes only, and is not necessarily a complete statement of rights, obligations, or processes. This appendix is not a part of the BLM's land use plan decision for the Resource Management Plan (RMP). Any conflict with any statute or regulation is unintentional. In the event of a conflict, the statute or regulation controls. Federal oil and gas lessees and operators, and private surface owners, are advised to confer with the BLM at the time an action is proposed for BLM's consideration, in order to obtain information about the current regulations and policies that may apply to the proposal. Nothing in this appendix affects the authority of any Tribe or of the Bureau of Indian Affairs in any way. This RMP applies to federal lands as defined by the Federal Land Policy and Management Act of 1976 (FLPMA), and does not apply to lands held in trust for any Tribe or for any individual Indian or Indians.

## D.2 DEFINITIONS

*Casual use (operations)*: "Casual use means activities involving practices that do not ordinarily lead to any appreciable disturbance or damage to lands, resources, or improvements. This term does not apply to private surface. Casual use includes surveying activities" (43 Code of Federal Regulation [CFR] §3171, part II).

*Lease*: "Means any contract, profit share arrangement, joint venture or other agreement issued or approved by the United States under a mineral leasing law that authorizes exploration for, extraction of or removal of oil or gas" (43 CFR §3171, part II).

*Lease facility* or *production facility*: "Production facilities means a lessee's or lease operator's pipes and equipment used on the leasehold to aid in extracting, processing, and storing oil and gas…" (64 Federal Register [FR] 32140). See also BLM Manual Section 2880 ("Mineral Leasing Act Rights-of-Way") at page 9.

*Lease site*: "Means any lands, including the surface of a severed mineral estate, on which exploration for, or extraction and removal of, oil or gas is authorized under a lease" (43 CFR 3160.0-5).

*Lessee*: "Means any person holding record title or owning operating rights in a lease issued or approved by the United States" (43 CFR 3160.0-5).

*Operator*: "Means any person or entity including but not limited to the lessee or operating rights owner, who has stated in writing to the Authorized Officer that it is responsible under the terms and conditions of the lease for the operations conducted on the leased lands or a portion thereof" (43 CFR 3160.0-5).

*Public lands*: "Means any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management…" (FLMPA, Sec. 103(e)).

*Private surface owner*: "Private Surface Owner means a non-federal or non-state owner of the surface estate and includes any Indian owner of surface estate not held in trust by the United States" (Onshore Oil and Gas Order No. 1, part II).

*Split estate*: "Split Estate means lands where the surface is owned by an entity or person other than the owner of the Federal or Indian oil and gas" (43 CFR §3171, part II). "When tribal lands are held in trust or are subject to federal restrictions against alienation the Bureau of Indian Affairs is the Surface Managing Agency, but if lands are held in unrestricted fee, those lands are treated the same as private surface" (Preamble to 43 CFR §3171 revisions, 72 FR 10322-10323, March 7, 2007).

*Surface Managing Agency*: "Surface Managing Agency means any Federal or state agency having jurisdiction over the surface overlying Federal or Indian oil and gas" (43 CFR §3171, part II).

# D.3 GENERAL

In considering and authorizing exploration and development of split estate federal oil and gas leases, the BLM prefers that the operator and split estate surface owner reach a Surface Access Agreement for proposed oil and gas operations. The BLM coordinates with both the operator and surface owner, in accordance with the requirements of 43 CFR §3171, and generally provides the surface owner's lands the same level of resource (soil, water, vegetation, air, visual, cultural, etc.) protection as would be required on BLM-administered public lands.

"The BLM will offer the surface owner the same level of surface protection that the BLM provides on Federal surface. The BLM will not apply standards or conditions that exceed those that would normally be applied to Federal surface, even when requested by the surface owner" (The Gold Book, page 12).

Federal mineral lessees may enter onto a privately owned surface to the extent necessary to explore and produce the federal minerals in compliance with the relevant statutes, BLM regulations, and land use designations. The BLM does not have the authority to regulate a surface owner's use of the surface estate, but does have the authority to regulate the activities of federal mineral lessees and mining claimants. The BLM adds lease stipulations to split estate federal oil and gas leases in order to ensure that leasing decisions conform to the approved RMP for the area.

# D.4 OPERATIONS

## D.4.1 Geophysical

The BLM's authority to permit geophysical operations is described under 43 CFR §3150.0-1:

> *Geophysical exploration on public lands, the surface of which is administered by the Bureau, requires Bureau approval. The procedures in this part also apply to geophysical exploration conducted under the rights granted by any Federal oil and gas lease unless the surface is administered by the U.S. Forest Service. However, a lessee may elect to conduct exploration operations outside the rights granted by the lease, in which case authorization from the surface managing agency or surface owner may be required… The procedures of this part do not apply to… operations conducted on private surface overlying public lands unless such operations are conducted by a lessee under the rights granted by the Federal oil and gas lease…*

As BLM Handbook H-3150-1[1] at pages 1–2 explains:

> *In those situations where Federal minerals are underlying private surface and the private surface owner's consent is obtained, the BLM is not to become involved. However, when landowner consent for access to the surface cannot be obtained for geophysical*

[1] *Onshore Oil and Gas Geophysical Exploration Surface Management Requirements. January 9, 2007.*

> *exploration operations on a Federal lease by the lease operator, the geophysical operation is to be authorized using the Sundry Notice process…*[2]
>
> *When the geophysical exploration operator is the Federal lessee or designated operator of the lessee, it is to file a Sundry Notice… with the BLM and provide notification to the surface owner by certified mail that it intends to enter onto the lands and conduct lease operations. The lessee/operator must then submit proof to the BLM Authorized Officer that the surface owner has been notified. The lessee or operator must also submit proof to the BLM Authorized Officer that it has a current and adequate bond payable to the United States for use by the surface owner for damages caused during exploration operations. The Authorized Officer must give the surface owner 30 days to comment on the proposed action before approving the Sundry Notice.*

When a surface access agreement is reached to conduct geophysical operations on split estate lands with leased or unleased federal oil and gas, the BLM does not become involved.

The BLM will not accept a Notice of Intent (NOI) to Conduct Geophysical Operations, BLM Form 3150-4 or bond to permit entry to split estate lands with unleased federal oil and gas, since the BLM has not issued an oil and gas lease to allow for operations under 43 CFR Part 3160 (see 43 CFR 3150.0-1).

In order to conduct geophysical operations on split estate lands where a federal oil and gas lease has been issued and where an agreement with the surface owner has not been reached, the lessee or the operator must first obtain BLM authorization through an NOI that proposes entry to those lands in order to conduct geophysical operations. The lessee or designated operator must provide to the BLM a certification that a good-faith effort was made to: (a) notify the landowner prior to entry; (b) obtain a Surface Access Agreement; and (c) deliver a copy of the proposed NOI to the surface owner.[3] The NOI must also identify the surface owner and include the owner's name, address, and telephone number, if known. A good and sufficient bond to secure payment of applicable damages for the use and benefit of the surface owner must be provided to the BLM on BLM Form 3160-19. The lessee or designated operator must also submit to the BLM evidence of service of a copy of the bond upon the surface owner. Prior to authorizing the NOI proposing entry to the lands for which the bond has been submitted, the BLM notifies the surface owner and provides a 30-day period during which the surface owner may protest the sufficiency of the bond. If the sufficiency of the bond is protested, the BLM reviews the bond amount and determines if it is adequate. That decision by the BLM is subject to State Director Review (SDR) upon a request by any adversely affected party and the State Director's decision is subject to appeal to the Interior Board of Land Appeals (IBLA).[4]

## D.4.2 Notice of Staking/Application for Permit to Drill

### Surveying and Staking Activities

The lessee or operator is encouraged to contact the surface owner of split estate lands early in the process of planning for exploration and development of a federal lease. This facilitates early discussion about the goals and objectives of both the surface owner and operator. Communication between the lessee or operator

[2] *In BLM Washington Office Instruction Memorandum (IM) 2009-121, "Approval of Notice of Intent to Conduct Geophysical Exploration to Federal Oil and Gas Lessee on Split Estate", dated May 8, 2009, the BLM recognized that the Sundry Notice form (BLM Form 3160-5) is an imperfect form to use for permitting of geophysical operations. This policy clarified that the BLM will "no longer require the lessee or its operator to file a Sundry Notice" for the purpose of proposing entry to federal leases where a surface owner denies access to the lessee or its operator. In its place the BLM would use the NOI form (BLM Form 3150-4).*

[3] *See 43 CFR §3171, Part VI.*

[4] *See 43 CFR §3165.3(b). See, e.g., William P. Maycock, 176 IBLA 206 (2008).*

and surface owner can reduce potential conflicts, thereby reducing misunderstandings and permit processing times.

For surveying and staking activities, "[t]he operator is responsible for making access arrangements with the appropriate Surface Managing Agency (other than the BLM and the Forest Service) or private surface owner" (43 CFR §3171, part III.D.2.a).

"No entry on split estate lands for surveying and staking should occur without the operator first making a good faith effort to notify the surface owner. Also, operators are encouraged to notify the BLM or the Forest Service, as appropriate, before entering private lands to stake for Federal mineral estate locations" (43 CFR §3171, part III.D.2.b).

Aside from surveying and staking the proposed well location, road, pipeline, and/or other lease facilities, the operator may also be required to conduct resource condition surveys of the leased lands.

"As provided in the oil and gas lease, the BLM may request that the applicant conduct surveys or otherwise provide information needed for the BLM's National Historic Preservation Act consultation with the State Historic Preservation Officer or Indian tribe or its Endangered Species Act consultation with the relevant fisheries agency. The Federal mineral lessee has the right to enter the property for this purpose, since it is a necessary prerequisite to development of the dominant mineral estate. Nevertheless, the lessee or operator should seek to reach agreement with the surface owner about the time and method by which any survey would be conducted" (43 CFR §3171, part VI).

## Onsite Inspection(s)

On split estate lands, the onsite inspection provides the opportunity for the BLM, operator, and surface owner to evaluate and discuss the proposed well location or lease facility in the field.

"Within 10 days of receiving the application, the BLM, in coordination with the operator and Surface Managing Agency, including the private surface owner in the case of split estate minerals, will schedule a date for the onsite inspection (unless the onsite inspection has already been conducted as part of a Notice of Staking)" (43 CFR §3171, part III.E.2.a).

"On Non-National Forest System lands, the BLM will invite the Surface Managing Agency and private surface owner, if applicable, to participate in the onsite inspection. If the surface is privately owned, the operator must furnish to the BLM the name, address, and telephone number of the surface owner if known" (43 CFR §3171, part III.C).

At the onsite inspection, the BLM will consider applicable Best Management Practices (BMP) that would avoid or mitigate environmental impacts to natural resources. The onsite inspection provides the surface owner with the opportunity to review the proposed well location and/or lease facilities; provide information to the BLM and operator about resources, improvements, and land uses; and express preferences for BMPs to be used for lease operations.

"All parties who attend the onsite inspection will jointly develop a list of resource concerns that the operator must address in the application for permit to drill (APD). The operator will be provided a list of these concerns either during the onsite inspection or within 7 days of the onsite inspection. Surface owner concerns will be considered to the extent practical within the law" (43 CFR §3171, part III.C).

"The BLM will invite the surface owner to the onsite inspection to assure that their concerns are considered" (43 CFR §3171, part VI).

## Required Components of a Complete Application for Permit to Drill for Split Estate Operations

### Description of Surface Ownership

A description of the surface ownership (with name, address, and telephone number, if known) along with a certification must be included in the APD submitted by the operator to the BLM.

"The operator must indicate (in a narrative) the surface ownership at the well location, and of all lands crossed by roads that the operator plans to construct or upgrade, including, if known, the name of the agency or owner, phone number, and address. The operator must certify that they have provided a copy of the Surface Use Plan of Operations (SUPO) required in this section to the private surface owner of the well site location, if applicable, or that they made a good faith effort if unable to provide the document to the surface owner" (43 CFR §3171, part III.D.4.k).

### Surface Access Agreement or Waiver

For operations on leased split estate lands, the operator must undertake a good faith effort to reach a Surface Access Agreement.

"[I]n the case of actual oil and gas operations, the operator must make a good faith effort to notify the private surface owner before entry and make a good faith effort to obtain a Surface Access Agreement from the surface owner… The Surface Access Agreement may include terms or conditions of use, be a waiver, or an agreement for compensation. The operator must certify to the BLM that: (1) It made a good faith effort to notify the surface owner before entry; and (2) That an agreement with the surface owner has been reached or that a good faith effort to reach an agreement failed" (43 CFR §3171, part VI).

"The operator must make a good faith effort to provide a copy of their Surface Use Plan of Operations to the surface owner" (43 CFR §3171, part VI). The operator must also provide a copy of any revisions to the SUPO to the surface owner. If required under Onshore Oil and Gas Order No. 6 ("Hydrogen Sulfide Operations"), the BLM requires the operator to provide a copy of the Public Protection Plan to the surface owner.

"The surface use agreement between the surface owner and the operator is confidential. However, the APD Surface Use Plan of Operations must contain sufficient detail about any aspects of the agreement necessary for National Environmental Policy Act of 1969 (NEPA) documentation and to determine that the operations will be in compliance with laws, regulations, Onshore Orders, and agency policies" (The Gold Book, page 12).

"If the BLM's requirements conflict with provisions in the Surface [Access] Agreement, the operator or surface owner should disclose that conflict at the onsite or to the BLM in writing, and the BLM should consider those conflicts in making its final decision" (BLM's Split Estate Report to Congress at page 15). Thus, to the extent terms of the agreement may conflict with Conditions of Approval to the APD, the BLM should be made aware of those terms, so that they can be considered in the BLM's final decision.

"The BLM does not review the Surface Use Agreement and does not enforce portions of the Surface Use Agreement that are not contained within the approved APD" (BLM's Split Estate Report to Congress at page 17.)

### Bonding In Lieu of a Surface Access Agreement or Waiver

It is the preference of the BLM that the operator and surface owner reach a Surface Access Agreement. However, in those cases where an agreement is not reached, the BLM follows the procedural requirements

in the BLM's regulations and policies. A good and sufficient bond to secure payment of applicable damages for the use and benefit of the surface owner must be provided to the BLM on BLM Form 3160-19. The lessee or designated operator must also submit to the BLM evidence of service of a copy of the bond upon the surface owner. Prior to authorizing the APD proposing entry to the lands for which the bond has been submitted, the BLM notifies the surface owner and provides a 30-day period during which the surface owner may protest the sufficiency of the bond. If the sufficiency of the bond is protested, the BLM reviews the bond amount and determines if it is adequate. That decision by the BLM is subject to SDR upon a request by any adversely affected party and the State Director's decision is subject to appeal to the IBLA.[5]

"If no agreement was reached with the surface owner, the operator must submit an adequate bond (minimum of $1,000) to the BLM for the benefit of the surface owner sufficient to: (1) pay for loss or damages; or (2) as otherwise required by the specific statutory authority under which the surface was patented and the terms of the lease. Surface owners have the right to appeal the sufficiency of the bond. Before the approval of the APD, the BLM will make a good faith effort to contact the surface owner to assure that they understand their rights to appeal" (43 CFR §3171, part VI).

"The bond amount will be reviewed by the BLM to assure that it is sufficient based on the appropriate law" (Preamble to 43 CFR §3171 revisions, 72 FR 10323, March 7, 2007).

If operations under an approved APD result in loss or damages that are compensable under the statutes by which the lands were patented, the surface owner may obtain judgment from a court of competent jurisdiction. The BLM will then release from the bond the amount ordered by the court to the surface owner.

### Approval of the APD

The BLM considers the views of the surface owner before approving the APD. The BLM must prepare an environmental record of review (43 CFR 3162.5-1(a)) to document its evaluation of potential resource impacts, including documentation of NEPA compliance.

"The BLM must comply with NEPA, the National Historic Preservation Act, the Endangered Species Act, and related Federal statutes when authorizing lease operations on split estate lands where the surface is not federally owned and the oil and gas is Federal. For split estate lands within Forest Service administrative boundaries, the BLM has the lead responsibility, unless there is a local BLM/Forest Service agreement that gives the Forest Service this responsibility" (43 CFR §3171, part VI).

"After the APD is approved the operator must make a good faith effort to provide a copy of the Conditions of Approval to the surface owner. The APD approval is not contingent upon delivery of a copy of the Conditions of Approval to the surface owner" (43 CFR §3171, part VI).

## D.4.3 Sundry Notices

Operations proposed by Sundry Notice that will result in additional surface disturbance or re-disturbance of previously reclaimed areas require a SUPO.

"Prior to commencing any operation on the leasehold which will result in additional surface disturbance, other than those authorized under § 3162.3–1 or § 3162.3–2 of this title, the operator shall submit a proposal on Form 3160–5 to the Authorized Officer for approval. The proposal shall include a surface use plan of operations" (43 CFR 3162.3-3).

[5] *See 43 CFR §3165.3(b). See, e.g., William P. Maycock, 176 IBLA 206 (2008).*

"The operator must certify on Form 3160–5 that they have made a good faith effort to provide a copy of any proposal involving new surface disturbance to the private surface owner in the case of split estate" (43 CFR §3171, part VIII.A).

For review of Final Abandonment Notices submitted by an operator on split estate lands, the BLM will consider the views of the surface owner.

"If applicable, the private surface owner will be notified and their views will be carefully considered" (43 CFR §3171, part XII).

"In cases where the Surface Managing Agency or private surface owner desires to acquire an oil and gas well and convert it to a water supply well or acquire a water supply well that was drilled by the operator to support lease operations, the Surface Managing Agency or private surface owner must inform the appropriate BLM office of its intent before the approval of the APD in the case of a dry hole and no later than the time a NOI to Abandon is submitted for a depleted production well. The Surface Managing Agency or private surface owner must reach agreement with the operator as to the satisfactory completion of reclamation operations before the BLM will approve any abandonment or reclamation. The BLM approval of the partial abandonment under this section, completion of any required reclamation operations, and the signed release agreement will relieve the operator of further obligation for the well. If the Surface Managing Agency or private surface owner acquires the well for water use purposes, the party acquiring the well assumes liability for the well" (43 CFR §3171, part IX.B).

"Completion of a well as plugged and abandoned may also include conditioning the well as water supply source for lease operations or for use by the surface owner or appropriate Government Agency, when authorized by the Authorized Officer. All costs over and above the normal plugging and abandonment expense will be paid by the party accepting the water well" (43 CFR 3162.3-4(b)).

### D.4.4 Emergency Operations

"In the event of an emergency, the operator may take immediate action without prior Surface Managing Agency approval to safeguard life or to prevent significant environmental degradation. The BLM or the Forest Service must receive notification of the emergency situation and the remedial action taken by the operator as soon as possible, but not later than 24 hours after the emergency occurred. If the emergency only affected drilling operations and had no surface impacts, only the BLM must be notified. If the emergency involved surface resources on other Surface Managing Agency lands, the operator should also notify the Surface Managing Agency and private surface owner within 24 hours" (43 CFR §3171, Part IV.d).

## D.5 REFERENCES


- 43 CFR §3171.
- Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development ("The Gold Book").
- 43 CFR Part 3150.
- 43 CFR Part 3160.
- 43 CFR Subpart 3814.
- BLM Wyoming–Wyoming Oil and Gas Conservation Commission Memorandum of Understanding.
- BLM Handbook H-3150-1 (Geophysical Handbook).

- BLM Form 3160-019 ("Bond for Surface Owner Protection").
- BLM Brochure: Split Estate–Rights, Responsibilities, and Opportunities.
- BLM Brochure: Split Estate–Cultural Resource Requirements on Private Surface–Federal Minerals for Oil and Gas Development.
- BLM-Washington Office Instruction Memorandum 2003-131 ("Permitting Oil and Gas on Split Estate Lands and Guidance for Onshore Oil and Gas Order No. 1"), April 2, 2003.
- BLM-Washington Office Instruction Memorandum 2007-165 ("Split Estate Report to Congress–Implementation of Fluid Mineral Leasing and Land Use Planning Recommendations"), July 26, 2007.
- Energy Policy Act of 2005, Section 1835 ("Split-Estate Federal Oil and Gas Leasing and Development Practices").
- Energy Policy Act of 2005–Section 1835–A Report to Congress (December 2006).
- BLM-Washington Office Instruction Memorandum 1989-201 ("Legal Responsibilities of BLM for Oil and Gas Leasing and Operations on Split Estate Lands"), January 4, 1989.

# APPENDIX E—FEDERAL LAWS, REGULATIONS, AND POLICIES

## E.1 ENVIRONMENTAL POLICY

### National Environmental Policy Act of 1969

NEPA (42 United States Code [USC] 4321 et seq.) requires the preparation of EISs for federal projects that may have a significant effect on the environment. It requires systematic, interdisciplinary planning to ensure the integrated use of the natural and social sciences, and the environmental design arts in making decisions about major federal actions that may have a significant effect on the environment. The procedures required under NEPA are implemented through the CEQ regulations in 40 CFR §1500.

### Federal Compliance with Pollution Control Standards (EO 12088)

Federal Compliance with Pollution Control Standards (EO 12088) states that federal agencies must comply with applicable pollution control standards.

### Protection and Enhancement of Environmental Quality (EO 11514)

Protection and Enhancement of Environmental Quality (EO 11514, as amended by EO 11991) establishes the policy for federal agencies to provide leadership in environmental protection and enhancement.

### Organic Administration Act of 1897

This Act authorizes the Secretary of Agriculture to issue rules and regulations for the occupancy and use of the National Forests. This is the basic authority for authorizing use of NFS lands for other than ROWs.

## E.2 LAND USE AND NATURAL RESOURCES MANAGEMENT

### Federal Land Policy and Management Act of 1976

The FLPMA, as amended (43 USC 1701, et seq.), provides for public lands to be generally retained in federal ownership for periodic and systematic inventory of the public lands and their resources; for a review of existing withdrawals and classifications; for establishment of comprehensive rules and regulations for administering public lands statutes; for multiple-use management on a sustained yield basis; for protection of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archaeological values; for receiving fair market value for the use of the public lands and their resources; for establishment of uniform procedures for any disposal, acquisition or exchange; for identification and protection of areas of critical environmental concern; for recognition of the nation's need for domestic sources of minerals, food, timber and fiber from the public lands, including implementation of the Mining and Mineral Policy Act of 1970; and for payments to compensate states and local governments for burdens created as a result of the immunity of federal lands from state and local taxation. The general land management regulations are provided in 43 CFR §2000, Subchapter B.

## The Forest and Rangelands Renewable Resources Planning Act of 1974

This Act directs the Secretary of Agriculture to include, as appropriate, research activities when managing forest and rangeland resource, and to periodically assess the national situation of the forest and rangeland resources. This assessment is called the Renewable Planning Act assessment. See FSM 1906 and FSM 1910 for detailed requirements.

## Taylor Grazing Act of 1934

The Taylor Grazing Act of 1934, as amended (43 USC 315), provides authorization to the Secretary of the Interior to establish grazing districts from any part of the public domain of the United States (exclusive of Alaska) which, in the Secretary's opinion, are chiefly valuable for grazing and raising forage crops; to regulate and administer grazing use of the public lands; and to improve the public rangelands. Regulations for grazing permits are provided in 43 CFR §4100.

## Public Rangelands Improvement Act of 1978

The Public Rangelands Improvement Act of 1978 (43 USC 1901, et seq.) provides for the improvement of range conditions on public rangelands, research on wild horse and burro population dynamics, and other range management practices.

## Federal Noxious Weed Act of 1974

The Federal Noxious Weed Act of 1974, as amended (7 USC 2814), provides for the designation of a lead office and a person trained in the management of undesirable plants, establishment and funding of a management program for undesirable plants, completion and implementation of cooperative agreements with state agencies, and establishment of integrated management systems to control undesirable plant species.

## Healthy Forests Restoration Act of 2003

The Healthy Forests Restoration Act serves to further the Healthy Forests Initiative to reduce the threat of destructive wildfires while upholding environmental standards and encouraging early public input during review and planning processes. The Act strengthens public participation in developing high-priority forest health projects; reduces the complexity of environmental analysis, allowing federal land agencies to use the best science available to actively manage land under their protection; provides a more effective appeals process, encouraging early public participation in project planning; and issues clear guidance for court action against forest health projects.

## Grazing Fees of 1986 (EO 12548)

EO 12548 provides for establishment of appropriate fees for the grazing of domestic livestock on public rangelands and directs that the fee shall not be less than $1.35 per animal unit month.

## Wilderness Act of 1964

The Wilderness Act of 1964 (16 USC 1131, et seq.) provides for the designation and preservation of wilderness areas.

## Wild and Scenic Rivers Act of 1968, as amended (16 U.S.C. 1271-1287)

This Act establishes the National Wild and Scenic Rivers System, designates the rivers included in the system, establishes policy for managing designated rivers, and prescribes a process for designating additions to the system.

## Federal Land Exchange Facilitation Act of 1988

The Federal Land Exchange Facilitation Act amended FLPMA with respect to BLM land exchanges. It was designed to streamline land exchange procedures.

## Recreation and Public Purposes Act of 1926

In 1954, the Congress enacted the Recreation and Public Purposes Act (43 USC 869 et. seq.) as a complete revision of the Recreation Act of 1926 in response to the public need for a nationwide system of parks and other recreational and public purposes areas. This law is administered by the BLM. The Act authorizes the sale or lease of public lands for recreational or public purposes to state and local governments and to qualified nonprofit organizations. Examples of typical uses under the Act are historic monument sites, campgrounds, schools, fire houses, law enforcement facilities, municipal facilities, landfills, hospitals, parks and fairgrounds.

## National Trails System Act of 1968, as amended (16 U.S.C. 1241-1251)

In order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of public access to travel within, and for the enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation, trails should be established (i) primarily, near the urban areas of the Nation, and (ii) secondarily, within scenic areas and along historic travel routes of the Nation, often more remotely located.

The purpose of this Act is to provide the means for attaining these objectives by instituting a national system of recreation, scenic and historic trails, by designating the Appalachian Trail and the Pacific Crest Trail as the initial components of that system, and by prescribing the methods by which, and standards according to which, additional components may be added to the system.

## Airport and Airway Improvement Act of 1982

The Airport and Airway Improvement Act established the Airport Improvement Program which provides grants to public agencies and, in some cases, to private owners and entities for the planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems.

## Wyoming Range Legacy Act of 2009

This Act established the Wyoming Range Withdrawal Area and affects all NFS lands and federal minerals in the identified withdrawal area located in the Bridger-Teton National Forest. The Act withdrew the area to: (1) all forms of appropriation or disposal under the public land laws; (2) location, entry and patent under the mining laws; and (3) disposition under laws relating to mineral and geothermal leasing.

# E.3 AIR QUALITY

## The Clean Air Act of 1990

The Clean Air Act of 1990, as amended (42 USC 7401, 7642), requires the BLM to protect air quality, maintain federal and state designated air quality standards, and abide by the requirements of the state implementation plans.

## Wyoming Air Quality Standards and Regulations

Wyoming air quality standards and regulations, Chapters 1 to 11, specify the requirements for air permitting and monitoring to implement Clean Air Act and state ambient air quality standards.

# E.4 WATER QUALITY

## The Clean Water Act of 1987

The Clean Water Act of 1987, as amended (33 USC 1251), establishes objectives to restore and maintain the chemical, physical and biological integrity of the Nation's water. The Act also requires permits for point source discharges to navigable waters of the United States and the protection of wetlands and includes monitoring and research provisions for protection of ambient water quality.

## The Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs and groundwater wells. SDWA authorizes the U.S. Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants that may be found in drinking water. The U.S. EPA, states and water systems work together to ensure that these standards are met.

## Wyoming Water Quality Standards and Regulations

Wyoming water quality standards and regulations implement permitting and monitoring requirements for the National Pollutant Discharge Elimination System, operation of injection wells, ground water protection requirements, prevention and response requirements for spills, and salinity standards and criteria for the Colorado River Basin.

## Colorado River Basin Salinity Control Act of 1974

The Colorado River Basin Salinity Control Act of 1974, Public Law 93-320, authorizes the construction, operation and maintenance of works in the Colorado River Basin to control the salinity of water delivered to Mexico.

## Protection of Wetlands (EO 11990)

Protection of Wetlands (EO 11990) requires federal agencies to take action to minimize the destruction, loss or degradation of wetlands, and preserve and enhance the natural and beneficial values of wetlands.

## Floodplain Management (EO 11988)

Floodplain Management (EO 11988) provides for the restoration and preservation of national and beneficial floodplain values, and enhancement of the natural and beneficial values of wetlands in carrying out programs affecting land use.

# E.5 MINERALS

## General Mining Law of 1872

The General Mining Law of 1872, as amended (30 USC 22, et seq.), provides for locating and patenting mining claims where a discovery has been made for locatable minerals on public lands in specified states. Regulations for staking and maintenance of claims on BLM-administered lands are listed in 43 CFR §3800. Regulations for staking and maintenance of claims on NFS lands are listed in 36 CFR Part 228.

## Mineral Leasing Act of 1920

The Mineral Leasing Act of 1920, as amended (30 USC 181, et seq.), provides for the leasing of deposits of coal, phosphate, sodium, potassium, oil, oil shale, native asphalt, solid and semisolid bitumen, bituminous rock or gas, and lands containing such deposits owned by the United States, including those in national forests but excluding those acquired under other acts subsequent to February 25, 1920, and those lands within the national petroleum and oil shale reserves. Regulations for onshore oil and gas leasing are provided in 43 CFR §3100. Regulations concerning oil and gas leases on NFS lands are listed in 36 CFR Part 228.

## Materials Act of 1947

The Materials Act of 1947, as amended (30 USC 601–604, et seq.), provides for the sale of common variety materials for personal, commercial or industrial uses and for free use for local, state, and federal governmental entities. The sales of mineral materials are controlled by the regulations listed in 43 CFR §3600 and 36 CFR Part 228.

## Common Varieties of Mineral Materials Act of 1947

The Common Varieties of Mineral Materials Act of 1947 provides for the disposal of mineral materials on the public lands through bidding, negotiated contracts or free use.

## Mineral Leasing Act for Acquired Lands of 1947

The Mineral Leasing Act for Acquired Lands of 1947 states that all deposits of coal, phosphate, oil, oil shale, gas, sodium, potassium and sulfur that are owned, may be acquired, and are within lands acquired by the United States, may be leased by the Secretary of the Interior under the same conditions as contained in the leasing provisions of the mineral leasing laws. No mineral deposits shall be leased without the consent of the head of the executive department having jurisdiction over the lands containing the deposit and subject to such conditions as that official may prescribe.

## Multiple Use Mining Act of 1955

The Multiple Use Mining Act of 1955 allows the sale of mineral materials, such as sand and gravel, and provides direction for use of surface resources of mining claims.

## Mining and Minerals Policy Act of 1970

The Mining and Minerals Policy Act of 1970 states that the continuing policy of the federal government is to foster and encourage private enterprise in the development of economically sound and stable domestic mining and minerals industries and the orderly and economic development of domestic mineral resources.

## Federal Coal Leasing Amendments Act of 1976

The Federal Coal Leasing Amendments Act of 1976 (30 USC 201, et seq.) requires competitive leasing of coal on public lands and mandates a broad spectrum of coal operations requirements for lease management. Coal leasing regulations for BLM-administered and NFS lands are provided in 43 CFR §3400.

## Federal Onshore Oil and Gas Leasing Reform Act of 1987

The Federal Onshore Oil and Gas Leasing Reform Act of 1987 authorized the Secretary of Agriculture the opportunity to object to leasing NFS lands reserved from the public domain and to regulate surface disturbing activities conducted pursuant to any lease issued under this Act. The BLM may issue oil and gas leases on NFS lands reserved for the public domain unless the Forest Service objects to the leasing.

## Energy Policy and Conservation Act of 2000

The purposes of the Energy Policy and Conservation Act of 2000, as amended (42 USC 6217 et seq.), are to:

- Grant specific authority to the President to fulfill obligations of the United States under the international energy program,
- Provide for the creation of a Strategic Petroleum Reserve capable of reducing the impact of severe energy supply interruptions,
- Conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy uses,
- Provide for improved energy efficiency of motor vehicles, major appliances and certain other consumer products,
- Provide a means for verification of energy data to ensure the reliability of energy data,
- Conserve water by improving the water efficiency of certain plumbing products and appliances.

## Actions to Expedite Energy-Related Projects (EO 13212)

EO 13212 of May 18, 2001, directs the federal agencies to expedite their review of permits for energy-related projects while maintaining safety, public health and environmental protections.

## Energy Policy Act of 2005

The Energy Policy Act of 2005 requires the BLM and Forest Service to enter into a Memorandum of Understanding to establish joint BLM and Forest Service policies and procedures to managing oil and gas leasing and operational activities such that there is consistency in lease stipulations across jurisdictional boundaries.

# Bureau of Land Management Energy and Non-Energy Mineral Policy

This statement sets forth BLM policy for the management of energy and non-energy mineral resources (mineral resources) on public lands. It reflects the provisions of five important acts of Congress relating to mineral resources: the Domestic Minerals Program Extension Act of 1953; the Mining and Minerals Policy Act of 1970; the Federal Land Policy and Management Act of 1976; the National Materials and Minerals Policy, Research and Development Act of 1980; and the Energy Policy Act of 2005. This policy represents a commitment by the BLM to implement the requirements of these statutes consistent with BLM's other statutory obligations, as follows:

The Domestic Minerals Program Extension Act of 1953 states that each department and agency of the Federal Government charged with responsibilities concerning the discovery, development, production, and acquisition of strategic or critical minerals and metals shall undertake to decrease further, and to eliminate where possible, the dependency of the United States on overseas sources of supply of each such material.

The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. This act includes all minerals, including sand and gravel, geothermal, coal, oil and gas.

The Federal Land Policy and Management Act of 1976 reiterates that the 1970 Mining and Minerals Policy Act shall be implemented and directs that public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources.

The National Materials and Minerals Policy, Research and Development Act of 1980 requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision-making.

The Energy Policy Act of 2005 encourages energy efficiency and conservation; promotes alternative and renewable energy sources; reduces dependence on foreign sources of energy; increases domestic production; modernizes the electrical grid; and encourages the expansion of nuclear energy.

The BLM recognizes that public lands are an important source of the Nation's energy and non-energy mineral resources, some of which are critical and strategic. The BLM is responsible for making public lands available for orderly and efficient development of these resources under principles of multiple use and sustained yield, in accordance with FLPMA.

The following principles will guide the BLM in managing mineral resources on public lands:

> Except for Congressional withdrawals, public lands shall remain open and available for mineral exploration and development unless withdrawal or other administrative actions are clearly justified in the national interest in accordance with the DOI Land Withdrawal Manual 603 DM 1, and BLM regulations at 43 CFR §2310. Petitions to the Secretary of the Interior for revocation of land withdrawals for mineral exploration and development will be evaluated through the land use planning process.
>
> The BLM actively encourages development by private industry of public land mineral resources, and promotes practices and technology that least impact natural and human resources.
>
> The BLM will adjudicate and process mineral patent applications, permits, operating plans, mineral exchanges, leases and other mineral use authorizations for public lands in a manner to prevent unnecessary or undue degradation, in a timely and efficient manner, and will require financial assurances to provide for reclamation of the land and for other purposes authorized by law. Mine closure and reclamation considerations include alternative forms of use such as for landfills, wind farms,

biomass facilities and other industrial uses, to attract partnerships to utilize the existing mine infrastructure for a future economic opportunity.

The BLM land use planning and multiple-use management decisions will recognize that, with few exceptions, mineral exploration and development can occur concurrently or sequentially with other resource uses. The least restrictive stipulations that effectively accomplish the resource objectives or uses will be used. The BLM will coordinate with surface owners when the Federal minerals estate under their surface ownership is proposed for development.

Land use plans will reflect geological assessments and mineral potential on public lands through existing geology and mineral resource data, and to the extent feasible, through new mineral assessments to determine mineral potential. Partnerships with State Geologists and the U.S. Geological Survey for obtaining existing and new data should be considered.

The BLM will work closely with Federal, State and Tribal governments to reduce duplication of effort while processing mineral related permit applications.

The BLM will monitor locatable, salable and leasable mineral operations to ensure proper resource recovery and evaluation, production verification, diligence and enforcement of terms and conditions. The BLM will ensure receipt of fair market value for mineral materials, and appropriate royalty rates for leasable commodities unless otherwise provided for by statute.

The BLM will continue to develop e-Government solutions that will provide for electronic submission and tracking of applications for exploration and development of mineral resources. The BLM will continue to provide public access to mineral records, including spatial display of all types of authorizations and mineral resource data.

The BLM will maintain and enhance the understanding, skills, and abilities of effective professional, technical, and managerial personnel knowledgeable in adjudication, geology, mineral exploration and development.

To the extent provided by law, regulation, secretarial order, and written agreement with the Bureau of Indian Affairs, the BLM will apply the above principles to the management of mineral resources and operations on Indian Trust lands in order to comply with its Trust Responsibilities.

# E.6 CULTURAL RESOURCES

## The Antiquities Act of 1906

The Antiquities Act of 1906 (16 USC 431-433) protects objects of historic and scientific interest on public lands. It authorizes the President to designate historic landmarks and structures as national monuments and provides penalties for people who damage these historic sites. The Act has two main components: (1) a criminal enforcement component, which provides for the prosecution of persons who appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity on lands owned or controlled by the United States, and (2) a component that authorizes a permit for the examination of ruins and archaeological sites and the gathering of objects of antiquity on lands owned or controlled by the United States.

## Historic Sites Act of 1935

The Historic Sites Act (16 USC 461) declares national policy to identify and preserve historic sites, buildings, objects, and antiquities of national significance, thereby providing a foundation for the National Register of Historic Places (NRHP).

## National Historic Preservation Act of 1966

The National Historic Preservation Act of 1966 (NHPA), as amended (16 USC 470), expands protection of historic and archaeological properties to include those of national, state, and local significance. The NHPA (in Section 106) requires federal agencies to take into account the potential effects of agency actions on properties listed on or eligible for the NRHP. Agencies are also required to consult with the State Historic Preservation Office (SHPO), and sometimes with the Advisory Council on Historic Preservation, concerning those effects. The SHPO is also sometimes consulted concerning applicable methods for determining whether there are NRHP-eligible properties in the area of potential effect of an agency undertaking, whether properties are eligible, and appropriate mitigation measures. The NHPA (in Section 110) also requires federal agencies to identify properties that may qualify for listing on the NRHP, to evaluate and nominate such places to the register, and to develop plans for their management. Section 110 of the NHPA requires federal agencies to develop proactive programs to interpret archaeological resources for the benefit of the public. The 1992 amendments to the NHPA call for federal agencies to conduct Native American consultation on projects that may affect sites or resources that Tribes consider sensitive, sacred or culturally important.

## Protection and Enhancement of the Cultural Environment of 1971 (EO 11593)

Protection and Enhancement of the Cultural Environment directs federal agencies to locate, inventory, nominate and protect federally owned cultural resources eligible for the NRHP, and to ensure that their plans and programs contribute to preservation and enhancement of nonfederally owned resources.

## American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act (42 USC 1996) clarifies U.S. policy pertaining to the protection of Native Americans' religious freedom. The special nature of Native American religions has frequently resulted in conflicts between federal laws and policies and religious freedom. The Act establishes a policy of protecting and preserving the inherent right of individual Native Americans (including American Indians, Eskimos, Aleuts, and Native Hawaiians) to believe, express and exercise their traditional religions.

## Archaeological Resources Protection Act of 1979

The Archaeological Resource Protection Act, as amended (16 USC 470a, 470cc, 470ee), requires permits for the excavation or removal of federally administered archaeological resources, encourages increased cooperation among federal agencies and private individuals, provides stringent criminal and civil penalties for violations, and requires federal agencies to identify important resources vulnerable to looting and to develop a tracking system for violations. ARPA requires federal agencies to establish a program to increase public awareness of the significance of the archaeological resources located on public lands and Indian lands and the need to protect such resources.

## Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (25 USC 3001) is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items—human remains, funerary objects, sacred objects, and objects of cultural patrimony—to lineal descendants, culturally affiliated Native American tribes and Native Hawaiian organizations. It also addresses consultation with Native Americans for the excavation and/or removal of cultural items, and the discovery of cultural items made during land use activities.

The NAGPRA requires: 1) that Federal Agencies consult with tribes in regards to the repatriation of human remains and four types of cultural objects held in their collections; 2) that they consult with Native Americans in regards to the protection of burial sites on Federal land, both those known/suspected and those inadvertently discovered; 3) that the agency consults with Tribes on disposition/control of cultural items and human remains found on federal lands [25 USC 3002(a)]; 4) that Federal agencies will only allow excavation and removal of Native American items and human remains from Federal lands with a permit which is issued only after consultation with tribes [25 USC 3002(c)]; and 5) provides penalties for illegal trafficking [18 USC 1170].

## Indian Sacred Sites (EO 13007)

EO 13007, signed in 1996, requires each executive branch agency with statutory or administrative responsibility for the management of federal lands to accommodate access to and ceremonial use of Native American sacred sites by Native American religious practitioners and avoid adversely affecting the physical integrity of such sacred sites, whenever possible. Where appropriate, agencies shall maintain the confidentiality of sacred sites.

Indian Sacred Sites, as defined in Executive Order (EO) 13007, are "any specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion." Indian Sacred Sites are not always eligible for the NRHP; however, pursuant to the guidelines in EO 13007, they receive the same protective measures as NRHP-eligible historic properties. Indian Sacred Sites [EO 13007] also mandates that Federal agency permitted actions cannot block Tribal access to sacred sites. To protect traditional Native American cultural resources, the locations are often kept confidential and not released to the public (BLM 2003[1]).

## Consultation and Coordination with Indian Tribal Governments (EO 13175)

EO 13175, signed in 2000, required federal agencies to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.

## Trails for America in the 21st Century (EO 13195)

EO 13195, signed in 2001, requires federal agencies, to the extent permitted by law and where practicable—and in cooperation with tribes, states, local governments and interested citizen groups—to protect, connect, promote and assist trails of all types throughout the United States.

[1] *BLM Handbook H-1780-1: https://www.blm.gov/sites/blm.gov/files/uploads/H-1780-1__0.pdf.*

## Preserve America (EO 13287)

EO 13287, signed in 2003, requires the Federal Government to lead the preservation of America's heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the government and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties.

# E.7 HAZARDOUS MATERIALS

## Comprehensive Environmental Response, Compensation and Liability Act of 1980

The Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 USC 9601–9673), provides for liability, risk assessment, compensation, emergency response and cleanup (including the cleanup of inactive sites) for hazardous substances. The Act requires federal agencies to report sites where hazardous wastes are or have been stored, treated, or disposed of and requires responsible parties, including federal agencies, to clean up releases of hazardous substances.

## Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act, as amended by the Federal Facility Compliance Act of 1992 (42 USC 6901–6992), authorizes the U.S. EPA to manage, by regulation, hazardous wastes on active disposal operations. The Act waives sovereign immunity for federal agencies with respect to all federal, state and local solid and hazardous waste laws and regulations. Federal agencies are subject to civil and administrative penalties for violations and to cost assessments for the administration of the enforcement.

## Emergency Planning and Community Right-to-Know Act of 1986

The Emergency Planning and Community Right-to-Know Act of 1986 (42 USC 11001–11050) requires the private sector to inventory chemicals and chemical products, to report those in excess of threshold planning quantities, to inventory emergency response equipment, to provide annual reports and support to local and state emergency response organizations, and to maintain a liaison with the local and state emergency response organizations and the public.

# E.8 PALEONTOLOGICAL RESOURCES

## Paleontological Resources Preservation Act (summarized)

### Significance of the Law:

This is the first legislation specifically addressing the management of paleontological resources on Federal lands. BLM's management of paleontological resources was primarily authorized under the Federal Land Policy and Management Act (FLPMA) of 1976, the National Environmental Protection Act (NEPA) of 1969, and a host of lesser laws prior to enactment of this legislation.

As most of these existing laws did not specifically address paleontological resources directly, management was based on phrases such as "protect...the quality of scientific...and other values" (FLPMA) or that "important historic, cultural and natural aspects of our national heritage..." should be protected (NEPA). This left words like "quality," "scientific," "important" and "natural aspects" open for interpretation, especially when dealing with issues of permitting requirements, theft, and mitigation; and these

interpretations differed among agencies. Additionally, the broader implications of management were not considered, such as hobby collecting, commercial sales of non-scientific fossils, and just how far our management of the resource could legally extend. These FLPMA and NEPA statements were also focused solely on 'protection' rather than overall 'management,' therefore leaving unaddressed the opportunities for public interpretation, research, educational activities or other proactive efforts.

A Federal law addressing paleontological resources on Federal lands will eliminate or reduce most of these concerns. It will also recognize that paleontological resources are a legitimate, important resource that should be managed; beyond the vague 'protect important public values' principles. The mandates in the Paleontological Resources Preservation Act (PRPA) are actually quite similar to BLM's current management policies and practices, therefore little shift in our present approaches will result. However, this now gives us firm, clear direction - with the weight of law - to manage in this manner.

In summation, most of our management of paleontological resources has been based on our interpretations of indirect legislation, regulations, and policies, therefore it's been somewhat tenuous and subject to questioning. This Act will now provide us with firm legislative footing to properly manage all aspects of this resource.

## Management Issues:

This law states that casual (hobby) collection of fossils will be allowed; limited to reasonable amounts of common invertebrate and plant fossils, for non-commercial personal use. BLM did allow hobby collection of common invertebrate and plant fossils previously, but this was authorized under regulation and therefore was potentially subject to change at any time.

There will now be stricter penalties for unlawful collection of paleontological resources. Because paleontological resources were not specifically identified in other laws, which would then bring them under any penalty sections those laws may contain, it was always difficult to charge offenders with anything more stringent than theft of government property and a $500 fine, plus damages. Many of the more complete dinosaur skeletons sell for $50,000 to several million dollars, so a $500 fine was inconsequential and of little deterrent. The PRPA includes criminal and civil penalties for theft of paleontological resources, with possible penalties including up to five years in jail, and fines based on market or scientific value, costs of restoration, and any other factors considered relevant by the agency. Multiple offenses can be assessed for double the amount.

We will also have better consistency between agencies. This has not been a major issue; as most land managing agencies were similar in their overall approach, especially in recent years. But, there were a number of inconsistencies in the details of management approaches – the USGS, for example, has wanted to make specific locality data available to the public (primarily researchers) through written publications or web sites, but the BLM and other agencies treat this information as proprietary, and even exempt it from FOIA requests.

## Significant points and details:

Although many of these points reflect current policy, these now carry the weight of law, rather than regulations, policy statements, Instruction Memoranda or simple guidance; all subject to agency modification.

- Casual collecting is defined as "the collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use...resulting in only negligible disturbance to the Earth's surface and other resources." It's further stated that "the terms 'reasonable amount', 'common invertebrate and plant paleontological resources' and 'negligible disturbance' shall be determined by the Secretary."

- Paleontological Resource is defined as "any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth..." and goes on to specifically exclude archaeological and cultural (human graves, mostly) resources. Sec. 6301
- "The Secretary shall manage and protect paleontological resources on Federal land using scientific principles and expertise." Sec. 6302 (a)
- Permits are required for collecting of paleontological resources, except:
- "The Secretary shall allow casual collecting without a permit..." on BLM, BOR, and National Forest System lands, consistent with other laws and policies. Sec. 6304 (a)(1) and (2)
- Criteria for issuance of a permit include: the applicant is qualified; the activity is undertaken to further paleontological knowledge or for public education; the activity is consistent with any management plans; the methods of collecting will not threaten significant natural or cultural resources. Sec. 6304 (b)
- Permits will contain such terms and conditions as necessary, and shall include requirements that: fossils collected from public lands remain the property of the United States; the paleontological resources and copies of associated records will be preserved in an approved repository; specific locality data will not be released by the permittee or repository without the written permission of the Secretary. Sec. 6304 (c)
- Areas may be closed to collecting or access restricted to protect paleontological resources. Sec. 6304 (e)
- Prohibited Acts include: trafficking or offering to traffic in paleontological resources, if the person knew or should have known they were illegally collected from public lands; sell or purchase, or offer for sale or purchase, any paleontological resource, if the person knew or should have known they were illegally collected from public lands. Sec. 6306 (a)
- No false labeling. Includes false records, accounts and identifications. Sec. 6306 (b)
- This would mean intentional false labeling; not honest mistakes or preliminary identifications.
- Penalties include fines based on value of the fossils and up to five years in jail; second or subsequent violations may result in doubling the penalties. Sec. 6306 (c)
- Amount of penalties should consider: the scientific or fair market value of the paleontological resource; the cost of restoration and repair of the resource and the locality; any other factors considered relevant by the agency. Sec. 6307 (a)
- Penalties collected can be used only to: protect, restore, or repair the paleontological resources and the sites they came from; provide educational materials to the public; payment of rewards. Sec. 6307 (d). Penalty fees do not go into the general fund or any other fund or activity.
- Rewards are authorized for furnishing information which leads to a conviction or violation, up to 1/2 the penalties assessed. Sec. 6308 (a)
- All paleontological resources associated with a violation or conviction is subject to forfeiture. Sec. 6308 (b) (the final legislation eliminated the draft provision that would have allowed seizure of equipment and vehicles used in connection with the violation)
- Seized paleontological resources may be transferred to Federal or non-Federal educational institutions. Sec. 6308 (c) (Will probably be limited to approved repositories)
- Information concerning the nature and specific location of a paleontological resource shall be exempt from FOIA, with a few key exemptions. Sec. 6309

- This law does not apply to, or require a permit for, casual collecting of a rock or mineral. Sec. 6311 (3)
- This law does not affect any land other than Federal land or affect the lawful collection or sale of paleontological resources from land other than Federal land. Sec. 6311 (4)
- (These last two points are in contrast to much of the misinformation that was circulating among rock club websites and other communications prior to passage).

### Next Steps:

The BLM (and other agencies) will develop formal regulations that will expand on these points, create the additional details needed for implementation, and assure consistency with all other laws, regulations, and policies. Because of the mandate for the DOI and DOA to coordinate (Sec. 6302 (b), regulations may be cooperatively developed, to result in Uniform Regulations. Whether all the regulations will be developed in this manner, or whether some will be done within a specific agency, is unknown at this time. Uniform Regulations will probably be written initially by interagency paleontology staff, followed by reviews at each agency. For the BLM, this review will include all paleontology staff, other resource staff, the BLM solicitors (lawyers) and agency management people. At this time, time frames and procedures for this process have not been determined. It is expected that implementation of the provisions of the law will be accomplished in stages, with some PRPA sections enacted with little or no regulations needed, while other sections may not be fully implemented for several years.

# E.9 WILDLIFE AND FISHERIES

## Endangered Species Act of 1973

The purpose of the Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the USDI's USFWS and the Department of Commerce's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine species such as salmon and whales.

## Bald and Golden Eagle Protection Act

The Bald Eagle Protection Act (16 USC 668) prohibits the take, possession, sale, purchase, barter, offer to sell, purchase, transport, export or import, of any bald eagle, alive or dead, or any part, nest, or egg thereof. "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (50 CFR §22.3).

## Fish and Wildlife Coordination Act

The Act of March 10, 1934, (16 USC 661 et seq.) as amended, authorizes the Secretaries of Agriculture and Commerce to provide assistance to and cooperate with federal and state agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife. The Act also directs the Bureau of Fisheries to use impounded waters for fish-culture stations and migratory-bird resting and nesting areas and requires consultation with the Bureau of Fisheries before the construction of any new dams to provide for fish migration. In addition, the Act authorizes the preparation of plans to protect wildlife resources, the completion of wildlife surveys on public lands, and the acceptance by the federal agencies of funds or lands for related purposes provided that land donations receive the consent of the state in which they are located.

The amendments enacted in 1946 require consultation with the USFWS and the fish and wildlife agencies of states where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted…or otherwise controlled or modified" by any agency under a federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources."

## Fish and Wildlife Improvement Act of 1978

The Fish and Wildlife Improvement Act of 1978 (16 USC 7421; 92 Stat. 3110), Public Law 95-616, authorizes the Secretaries of the Interior and Commerce to establish, conduct, and assist with national training programs for state fish and wildlife law enforcement personnel. It also authorized funding for research and development of new or improved methods to support fish and wildlife law enforcement. The law provides authority to the Secretaries to enter into law enforcement cooperative agreements with state or other federal agencies and authorizes the disposal of abandoned or forfeited items under the fish, wildlife, and plant jurisdictions of these Secretaries. Public Law 105-328, signed October 30, 1998, amended the Act to allow the USFWS to use the proceeds from the disposal of abandoned items derived from fish, wildlife, and plants to cover the costs of shipping, storing and disposing of those items.

## Fish and Wildlife Conservation Act of 1980

The Fish and Wildlife Conservation Act (USC 2901–2911), commonly known as the Nongame Act, encourages states to develop conservation plans for nongame fish and wildlife of ecological, educational, aesthetic, cultural, recreational, economic or scientific value. The states may be reimbursed for a percentage of the costs of developing, revising, or implementing conservation plans approved by the Secretary of the Interior. Amendments adopted in 1988 and 1989 directed the Secretary to undertake research and conservation activities for migratory nongame birds.

## Migratory Bird Treaty Act of 1918 and EO 13186

The Migratory Bird Treaty Act (16 USC 703–712. § 703) makes taking, killing, or possessing migratory birds unlawful. It shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or eggs of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916 (39 Stat. 1702); the United States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936; the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972 [1]; and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976 (50 CFR §10.12). Under Executive Order 13186, federal agencies are responsible for implementing the provisions of the Migratory Bird Treaty Act by promoting conservation principles and management practices into agency activities. Federal agencies must ensure that federal actions are evaluated for potential impacts on migratory birds.

## Sikes Act of 1960

The Sikes Act (16 USC 670a–670o, 74 Stat. 1052), as amended, Public Law 86-797, approved September 15, 1960, provides for cooperation by the Departments of the Interior and Defense with state agencies in

planning, development, and maintenance of fish and wildlife resources on military reservations throughout the United States. Key amendments to the Act that affect this EIS are highlighted below:

- An amendment enacted August 8, 1968 (Public Law 90-465, 82 Stat. 661), authorized a program for development of outdoor recreation facilities.
- Public Law 93-452, signed October 18, 1974 (88 Stat. 1369), authorized conservation and rehabilitation programs on Department of Energy (DOE), National Aeronautics and Space Administration (NASA), Forest Service, and BLM lands. These programs are carried out in cooperation with the states by the Secretary of the Interior and on Forest Service lands by the Secretary of Agriculture.
- Public Law 97-396, approved December 31, 1982 (96 Stat. 2005), provided for the inclusion of endangered plants in conservation programs developed for BLM, Forest Service, NASA, and DOE lands.
- Public Law 105-85, approved November 18, 1997 (11 Stat. 2017, 2018, 2020, 2022), added that each integrated natural resources management plan (INRMP) prepared under this act should provide for the sustainable use by the public of natural resources, to the extent that the use is not inconsistent with the needs of fish and wildlife resources. Public Law 105-85 also requires that the Secretary of the Interior, in consultation with state fish and wildlife agencies, submit a report annually on the amounts expended by the USDI and state fish and wildlife agencies on activities conducted pursuant to INRMPs to respective congressional committees with oversight responsibilities.

### Federal Cave Resources Protection Act of 1988

The purpose of the Federal Cave Resources Protection Act (16 USC 63) is to secure, protect and preserve significant caves on federal lands for the perpetual use, enjoyment, and benefit of all people and to foster increased cooperation and exchange of information between governmental authorities and those who use caves located on federal lands for scientific, education, or recreational purposes.

## E.10 WILD HORSES

### Wild Free Roaming Horse and Burro Act of 1971

The Wild Free Roaming Horse and Burro Act of 1971 provides for the management, protection and control of wild horses and burros on public lands and authorizes “adoption” of wild horses and burros by private individuals. Regulations applicable to wild horse and burro management on BLM-administered lands are provided in 43 CFR §4700.

## E.11 OTHER POLICY

### Regional Mitigation Strategies – Managing Large-scale Projects

Regional Mitigation Strategies are an effective tool for involving stakeholders in planning and efficiently managing Greater Sage-Grouse mitigation on a regional or landscape-level basis where the BLM anticipates large-scale projects and intensive, new development. The intent of Regional Mitigation Strategies, beyond fulfilling the concepts identified in §1.6(B)(1) includes the following:

- Increasing permitting efficiency and financial predictability for applicants by preplanning mitigation needs; and

- Enhancing the ability of Federal and State governments, Tribes, nongovernmental organizations, and resource users to invest in larger scale mitigation efforts through prioritization of investments and pooling of financial resources.

Regional Mitigation Strategies should include the following elements:

- A transparent stakeholder engagement process;
- A description of regional baseline conditions against which unavoidable impacts are assessed;
- The establishment and prioritization of regional mitigation objectives;
- The establishment of a method for calculating mitigation fees for unavoidable adverse impacts that warrant mitigation;
- The evaluation of appropriate mitigation sites, projects and/or measures;
- The identification and establishment of a structure to hold and apply mitigation investment funds; and
- The development of long-term monitoring and adaptive management requirements to evaluate and maximize the effectiveness of mitigation projects and measures.

A CCAA is a voluntary agreement whereby landowners agree to manage their lands to remove or reduce threats to species at risk of being listed under the ESA. In return for managing their lands to the benefit of a species at risk, landowners receive assurances against additional regulatory requirements should that species ever be listed under the ESA. Under a CCAA, the USFWS will issue enrolled landowners Enhancement of Survival permits pursuant to section 10(a)(1)(A) of the ESA for a period of 20 years. Since the agreement is voluntary, the landowner can end it at any point, although in doing so they would give up any assurances. Permits would be issued to participating landowners contingent on development of a site-specific sage-grouse conservation plan that is consistent with this CCAA.

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# APPENDIX F—PREDATOR MANAGEMENT

## F.1 INTRODUCTION

The U.S. Department of the Interior, Bureau of Land Management (BLM) will implement strategies and techniques in land management decisions that minimize the threat predators pose. The land management agencies will also support and encourage other landowners and agencies in their efforts to minimize impacts from predators where needs have been documented.

## F.2 REQUIRED DESIGN FEATURES RELATIVE TO PREDATORS IN LAND MANAGEMENT DECISIONS

Project proponents are encouraged to include all appropriate conservation measures in their proposals. The BLM will require application of all appropriate conservation measures, warranted by site-specific analysis, in order to avoid, minimize, rectify, reduce, or compensate for impacts. Conservation measures not included in project proposals and determined appropriate from the site-specific analysis will be required as Conditions of Approval (COA), stipulations, terms and conditions, etcetera. Additional COAs developed through consultation with other federal, state, and local regulatory and resource agencies may be applied when supported by site-specific analysis.

Required Design Features include but are not limited to the following:

- Prohibit open garbage dumps
- Require appropriate disposal of animal carcasses
- Construct or modify vertical structures in a manner that prevents nesting or perching by scavengers or raptors
- Require raptor perch deterrents on power poles as a component of permit issuance or renewal according to Avian Power Line Interaction Committee (APLIC) 2012 standards (APLIC 2012. Suggested Practices for Raptor Protection on Power Lines and Mitigating Bird Collisions with Power Lines. http://aplic.org)
- Remove vertical structures, such as utility poles, buildings, or windmills, where feasible and where these structures are either no longer necessary or operational
- Minimize creation of new roads
- Remove roads, unimproved roads, two-tracks, and restore sagebrush habitat
- Dispose of all garbage in containers that cannot be opened by animals
- Inventory and monitor predator populations by project proponents
- Identify and replace operational windmills with solar pumps

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# APPENDIX G–LAND HEALTH STANDARDS

## G.1 SUMMARY OF CURRENT LAND HEALTH STANDARD RATINGS FOR THE BLM ROCK SPRINGS FIELD OFFICE

| Allotment Name | Allotment # | Wyoming Land Health Standards* | | | | | | Significant Causal Factors if Land Health Standard(s) Not Achieved |
|---|---|---|---|---|---|---|---|---|
| | | 1 Soil Conditions | 2 Riparian Habitat | 3 Upland Vegetation | 4 Habitat Conditions | 5 Water Quality | 6 Air Quality** | |
| Alkali Creek | WY04004 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Antelope Wash | WY04022 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use |
| Bald Hills | WY04018 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use |
| Bar X | WY13008 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Big Sandy | WY13024 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Big Sandy Ranch | WY03304 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Boundary | WY13026 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Buckskin Sandy | WY13020 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Bush Rim | WY13013 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Invasive Species |
| Cedar Mountain | WY03201 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Private Land Practices |
| Cedar Point | WY04021 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Chilton Place | WY13114 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Private Land Practices |
| Circle Bar | WY04023 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Circle Springs | WY04001 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Continental Peak | WY13011 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |

| Allotment Name | Allotment # | Wyoming Land Health Standards* | | | | | | Significant Causal Factors if Land Health Standard(s) Not Achieved |
|---|---|---|---|---|---|---|---|---|
| | | 1 Soil Conditions | 2 Riparian Habitat | 3 Upland Vegetation | 4 Habitat Conditions | 5 Water Quality | 6 Air Quality** | |
| Corson Springs | WY20507 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Cottonwood Creek | WY04025 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use |
| Crooked Wash | WY04005 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Crookston Ranch | WY03215 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Dead Ox | WY13110 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Dewey Place | WY13106 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Donohoo | WY04016 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Eaton Place | WY13103 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Eden Project | WY03028 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |
| Eighteen Mile | WY13017 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Private Land Practices<br>• Upstream Dam |
| Erramouspe | WY13105 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Private Land Practices |
| Figure Four | WY13023 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Fish Creek | WY13009 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use |
| Fourth of July | WY03016 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Gold Creek | WY03000 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use |
| Grass Creek | WY03204 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Hanks | WY04019 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use |
| Hay Meadow | WY03307 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Irrigation Practices |

| Allotment Name | Allotment # | Wyoming Land Health Standards* | | | | | | Significant Causal Factors if Land Health Standard(s) Not Achieved |
|---|---|---|---|---|---|---|---|---|
| | | 1 Soil Conditions | 2 Riparian Habitat | 3 Upland Vegetation | 4 Habitat Conditions | 5 Water Quality | 6 Air Quality** | |
| Hickey Mountain | WY04013 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use<br>• Mineral Development<br>• Upstream Conditions |
| Highway-Gasson | WY13025 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Upstream Dam |
| Hisey Hollow | WY04020 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Horseshoe Wash | WY04006 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Houghton | WY13115 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Jack Ranch | WY13100 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Jensen Meadows | WY03303 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |
| Johnson Place | WY03214 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Juel Place | WY03202 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Larsen | WY04014 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Little Prospect | WY13002 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Private Land Practices<br>• Irrigation Practices |
| Little Sandy | WY13003 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use |
| Lombard | WY13022 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |
| Long Draw | WY13104 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Mack Flat | WY13021 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| McCann Ranch | WY13102 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |

| Allotment Name | Allotment # | Wyoming Land Health Standards* | | | | | | Significant Causal Factors if Land Health Standard(s) Not Achieved |
|---|---|---|---|---|---|---|---|---|
| | | 1 Soil Conditions | 2 Riparian Habitat | 3 Upland Vegetation | 4 Habitat Conditions | 5 Water Quality | 6 Air Quality** | |
| Mellor Mountain | WY04027 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Historic Livestock Use<br>• Private Land Practices<br>• Upstream Conditions<br>• Roads<br>• Irrigation Practices |
| Middle Hay Place | WY13107 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Pacific Creek | WY13007 | Not Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Irrigation Practices |
| Peoples Canal | WY04026 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Irrigation Practices |
| Pine Creek | WY13010 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use |
| Pine Mountain | WY04007 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Upstream Conditions<br>• Irrigation Practices |
| Poison Creek | WY04017 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Poston | WY13005 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Prospect Mountain | WY13004 | Meeting | Meeting | Not Meeting | Meeting | Unknown | Meeting | • Livestock Use |
| Pulley Place | WY03206 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Red Creek | WY04008 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Historic Livestock Use |
| Red Desert | WY13012 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Reservoir | WY13006 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Rife | WY04002 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Rock Springs | WY13018 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |

| Allotment Name | Allotment # | Wyoming Land Health Standards* | | | | | | Significant Causal Factors if Land Health Standard(s) Not Achieved |
|---|---|---|---|---|---|---|---|---|
| | | 1 Soil Conditions | 2 Riparian Habitat | 3 Upland Vegetation | 4 Habitat Conditions | 5 Water Quality | 6 Air Quality** | |
| Sage | WY04024 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use |
| Sage Creek Mountain | WY03200 | Meeting | Not Meeting | Meeting | Meeting | Meeting | Meeting | • Livestock Use<br>• Upstream Conditions<br>• Irrigation Practices |
| Salt Wells | WY04009 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Livestock Use<br>• Irrigation Practices<br>• Upstream Conditions |
| Sands | WY13015 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Sandy Pasture | WY13019 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Spicer Group | WY03203 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Spring Creek | WY04011 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |
| Stag Hollow | WY04015 | Meeting | Meeting | Meeting | Meeting | Meeting | Meeting | -- |
| Steamboat Mountain | WY13014 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Historic Livestock Use<br>• Private Land Practices |
| Sublette | WY13027 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Sugarloaf | WY04010 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Invasive Species<br>• Historic Livestock Use<br>• Wildlife Use<br>• Wildfire |
| Sweetwater | WY13109 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |
| Upper White Acorn | WY13101 | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Unevaluated | Meeting | -- |

| Allotment Name | Allotment # | Wyoming Land Health Standards* | | | | | | Significant Causal Factors if Land Health Standard(s) Not Achieved |
|---|---|---|---|---|---|---|---|---|
| | | 1 Soil Conditions | 2 Riparian Habitat | 3 Upland Vegetation | 4 Habitat Conditions | 5 Water Quality | 6 Air Quality** | |
| Vermillion Creek | WY04003 | Meeting | Not Meeting | Meeting | Meeting | Unknown | Meeting | • Invasive Species<br>• Upstream Conditions |
| White Acorn | WY13001 | Meeting | Meeting | Meeting | Meeting | Unknown | Meeting | -- |

*See Section G.2 for a detailed description of the Wyoming Land Health Standards.
**See 40 Code of Federal Regulations §81.351 and §52.2623 for attainment status designations in the State of Wyoming and Upper Green River Basin Area, respectively.

# G.2 STANDARDS FOR HEALTHY RANGELANDS AND GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT FOR PUBLIC LANDS ADMINISTERED BY THE BUREAU OF LAND MANAGEMENT IN THE STATE OF WYOMING AUGUST 12, 1997

## Introduction

According to the Department of the Interior's final rule for grazing administration, effective August 21, 1995, the Wyoming Bureau of Land Management (BLM) State Director is responsible for the development of standards for healthy rangelands and guidelines for livestock grazing management on 18 million acres of Wyoming's public rangelands. The development and application of these standards and guidelines are to achieve the four fundamentals of rangeland health outlined in the grazing regulations (43 Code of Federal Regulations [CFR] 4180.1). Those four fundamentals are: 1) watersheds are functioning properly; 2) water, nutrients, and energy are cycling properly; 3) water quality meets state standards; and 4) habitat for special status species is protected.

Standards address the health, productivity, and sustainability of the BLM-administered public rangelands and represent the minimum acceptable conditions for the public rangelands. The standards apply to all resource uses on public lands. Their application will be determined as use-specific guidelines are developed. Standards are synonymous with goals and are observed on a landscape scale. They describe healthy rangelands rather than important rangeland by-products. The achievement of a standard is determined by measuring appropriate indicators. An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be measured based on sound scientific principles.

Guidelines provide for and guide the development and implementation of reasonable, responsible, and cost-effective management practices at the grazing allotment and watershed level. The guidelines in this document apply specifically to livestock grazing management practices on BLM-administered public lands. These management practices will either maintain existing desirable conditions or move rangelands toward statewide standards within reasonable timeframes. Appropriate guidelines will ensure that the resultant management practices reflect the potential for the watershed, consider other uses and natural influences, and balance resource goals with social, cultural/historic, and economic opportunities to sustain viable local communities. Guidelines, like standards, apply statewide.

Implementation of the Wyoming standards and guidelines will generally be done in the following manner:

- Grazing allotments or groups of allotments in a watershed will be reviewed based on the BLM's current allotment categorization and prioritization process.
- Allotments with existing management plans and high-priority allotments will be reviewed first.
- Lower priority allotments will then be reviewed as time allows or when it becomes necessary for BLM to review the permit/lease for other reasons such as permit/lease transfers, permittee/lessee requests for change in use, etc.
- The permittees and interested publics will be notified when allotments are scheduled for review and encouraged to participate in the review.
- The review will first determine if an allotment meets each of the six standards.
- If it does, no further action will be necessary.
- If any of the standards aren't being met, rationale explaining the contributing factors will be prepared.

- If livestock grazing practices are found to be among the contributing factors, corrective actions consistent with the guidelines will be developed and implemented before the next grazing season in accordance with 43 CFR 4180.
- If a lack of data prohibits the reviewers from determining if a standard is being met, a strategy will be developed to acquire the data in a timely manner.

On a continuing basis, the Standards for Healthy Rangelands will direct on-the-ground management on the public lands. They will serve to focus the ongoing development and implementation of activity plans toward the maintenance or the attainment of healthy rangelands.

Quantifiable resource objectives and specific management practices to maintain or achieve the standards will be developed at the local BLM District and Resource Area levels and will consider all reasonable and practical options available to achieve desired results on a watershed or grazing allotment scale. The objectives shall be reflected in site-specific activity or implementation plans as well as in livestock grazing permits/leases for the public lands. These objectives and practices may be developed formally or informally through mechanisms available and suited to local needs (such as Coordinated Resource Management [CRM] efforts).

The development and implementation of standards and guidelines will enable on-the-ground management of the public rangelands to maintain a clear and responsible focus on both the health of the land and its dependent natural and human communities. This development and implementation will ensure that any mechanisms currently being employed or that may be developed in the future will maintain a consistent focus on these essential concerns. This development and implementation will also enable immediate attention to be brought to bear on existing resource concerns.

These standards and guidelines are compatible with BLM's three-tiered land use planning process. The first tier includes the laws, regulations, and policies governing BLM's administration and management of the public lands and their uses. The previously mentioned fundamentals of rangeland health specified in 43 CFR 4180.1, the requirement for BLM to develop these state (or regional) standards and guidelines, and the standards and guidelines themselves, are part of this first tier. Also, part of this first tier are the specific requirements of various federal laws and the objectives of 43 CFR 4100.2 that require BLM to consider the social and economic well-being of the local communities in its management process.

These standards and guidelines will provide for statewide consistency and guidance in the preparation, amendment, and maintenance of BLM land use plans, which represent the second tier of the planning process. The BLM land use plans provide general allocation decisions concerning the kinds of resource and land uses that can occur on BLM-administered public lands, where they can occur, and the types of conditional requirements under which they can occur. In general, the standards will be the basis for development of planning area-specific management objectives concerning rangeland health and productivity, and the guidelines will direct development of livestock grazing management actions to help accomplish those objectives.

The third tier of the BLM planning process, activity or implementation planning, is directed by the applicable land use plan and, therefore, by the standards and guidelines. The standards and guidelines, as BLM statewide policy, will also directly guide development of the site-specific objectives and the methods and practices used to implement the land use plan decisions. Activity or implementation plans contain objectives which describe the site-specific conditions desired. Grazing permits/leases for the public lands contain terms and conditions which describe specific actions required to attain or maintain the desired conditions. Through monitoring and evaluation, the BLM, grazing permittees, and other interested parties determine if progress is being made to achieve activity plan objectives.

Wyoming rangelands support a variety of uses which are of significant economic importance to the state and its communities. These uses include oil and gas production, mining, recreation and tourism, fishing, hunting, wildlife viewing, and livestock grazing. Rangelands also provide amenities which contribute to the quality of

life in Wyoming such as open spaces, solitude, and opportunities for personal renewal. Wyoming's rangelands should be managed with consideration of the state's historical, cultural, and social development and in a manner that contributes to a diverse, balanced, competitive, and resilient economy in order to provide opportunity for economic development. Healthy rangelands can best sustain these uses.

To varying degrees, BLM management of public lands and resources plays a role in the social and economic well-being of Wyoming communities. The National Environmental Policy Act (part of the above-mentioned first planning tier) and various other laws and regulations mandate the BLM to analyze the socioeconomic impacts of actions occurring on public rangelands. These analyses occur during the environmental analysis process of land use planning (second planning tier), where resource allocations are made, and during the environmental analysis process of activity or implementation planning (third planning tier). In many situations, factors that affect the social and economic well-being of local communities extend far beyond the scope of BLM management or individual public land users' responsibilities. In addition, since standards relate primarily to physical and biological features of the landscape, it is very difficult to provide measurable socioeconomic indicators that relate to the health of rangelands. It is important that standards be realistic and within the control of the land manager and users to achieve.

## Standards for Healthy Public Rangelands

### Standard #1

**Within the potential of the ecological site (soil type, landform, climate, and geology), soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff.**

**This means that:**

The hydrologic cycle will be supported by providing for water capture, storage, and sustained release. Adequate energy flow and nutrient cycling through the system will be achieved as optimal plant growth occurs. Plant communities are highly varied within Wyoming.

**Indicators may include but are not limited to:**

- Water infiltration rates
- Soil compaction
- Erosion (rills, gullies, pedestals, capping)
- Soil microorganisms
- Vegetative cover (gully bottoms and slopes)
- Bare ground and litter.

The above indicators are applied as appropriate to the potential of the ecological site.

## Standard #2

**Riparian and wetland vegetation have structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge.**

**This means that:**

Wyoming has highly varied riparian and wetland systems on public lands. These systems vary from large rivers to small streams and from springs to large wet meadows. These systems are in various stages of natural cycles and may also reflect other disturbance that is either localized or widespread throughout the watershed. Riparian vegetation captures sediments and associated materials, thus enhancing the nutrient cycle by capturing and utilizing nutrients that would otherwise move through a system unused.

**Indicators may include but are not limited to:**

- Erosion and deposition rate
- Channel morphology and floodplain function
- Channel succession and erosion cycle
- Vegetative cover
- Plant composition and diversity (species, age class, structure, successional stages, desired plant community, etc.)
- Bank stability
- Woody debris and instream cover
- Bare ground and litter.

The above indicators are applied as appropriate to the potential of the ecological site.

## Standard #3

**Upland vegetation on each ecological site consists of plant communities appropriate to the site, which are resilient, diverse, and able to recover from natural and human disturbance.**

**This means that:**

In order to maintain desirable conditions and/or recover from disturbance within acceptable timeframes, plant communities must have the components present to support the nutrient cycle and adequate energy flow. Plants depend on nutrients in the soil and energy derived from sunlight. Nutrients stored in the soil are used over and over by plants, animals, and microorganisms. The amount of nutrients available and the speed with which they cycle among plants, animals, and the soil are fundamental components of rangeland health. The amount, timing, and distribution of energy captured through photosynthesis are fundamental to the function of rangeland ecosystems.

**Indicators may include, but are not limited to:**

- Vegetative cover
- Plant composition and diversity (species, age class, structure, successional stages, desired plant community, etc.)
- Bare ground and litter

- Erosion (rills, gullies, pedestals, capping)
- Water infiltration rates.

The above indicators are applied as appropriate to the potential of the ecological site.

## Standard #4

**Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened, endangered, species of special concern, or sensitive species will be maintained or enhanced.**

**This means that:**

The management of Wyoming rangelands will achieve or maintain adequate habitat conditions that support diverse plant and animal species. These may include listed threatened or endangered species (U.S. Fish and Wildlife [USFWS]-designated), species of special concern (BLM-designated), and other sensitive species (USFWS-designated), species of special concern (BLM-designated), and other sensitive species (State of Wyoming-designated). The intent of this standard is to allow the listed species to recover and be delisted, and to avoid or prevent additional species becoming listed.

**Indicators may include, but are not limited to:**

- Noxious weeds
- Species diversity
- Age class distribution
- All indicators associated with the upland and riparian standards
- Population trends
- Habitat fragmentation.

The above indicators are applied as appropriate to the potential of the ecological site.

## Standard #5

**Water quality meets state standards.**

**This means that:**

The State of Wyoming is authorized to administer the Clean Water Act (CWA). BLM management actions or use authorizations will comply with all federal and state water quality laws, rules and regulations to address water quality issues that originate on public lands. Provisions for the establishment of water quality standards are included in the CWA, as amended, and the Wyoming Environmental Quality Act, as amended. Regulations are found in Part 40 of the CFR and in *Wyoming's Water Quality Rules and Regulations*. The latter regulations contain Quality Standards for Wyoming Surface Waters.

Natural processes and human actions influence the chemical, physical, and biological characteristics of water. Water quality varies from place to place with the seasons, the climate, and the kind substrate through which water moves. Therefore, the assessment of water quality takes these factors into account.

**Indicators may include but are not limited to:**

- Chemical characteristics (e.g., pH, conductivity, dissolved oxygen)

- Physical characteristics (e.g., sediment, temperature, color)
- Biological characteristics (e.g., macro- and micro-invertebrates, fecal coliform, and plant and animal species).

### Standard #6

**Air quality meets Wyoming standards.**

**This means that:**

The State of Wyoming is authorized to administer the Clean Air Act (CAA). BLM management actions or use authorizations will comply with all federal and state air quality laws, rules, regulations, and standards. Provisions for the establishment of air quality standards are included in the CAA, as amended, and the Wyoming Environmental Quality Act, as amended. Regulations are found in Part 40 of the CFR and in Wyoming Air Quality Standards and Regulations.

**Indicators may include but are not limited to:**

- Particulate matter
- Sulfur dioxide
- Photochemical oxidants (ozone)
- Volatile organic compounds (hydrocarbons)
- Nitrogen oxides
- Carbon monoxide
- Odors
- Visibility.

## BLM Wyoming Guidelines for Livestock Grazing Management

1. Timing, duration, and levels of authorized grazing will ensure that adequate amounts of vegetative ground cover, including standing plant material and litter, remain after authorized use to support infiltration, maintain soil moisture storage, stabilize soils, allow the release of sufficient water to maintain system function, and to maintain subsurface soil conditions that support permeability rates and other processes appropriate to the site.
2. Grazing management practices will restore, maintain, or improve riparian plant communities. Grazing management strategies consider hydrology, physical attributes, and potential for the watershed and the ecological site. Grazing management should maintain adequate residual plant cover to provide for plant recovery, residual forage, sediment capture, energy dissipation, and groundwater recharge.
3. Range improvement practices (instream structures, fences, water troughs, etc.) in and adjacent to riparian areas will ensure that stream channel morphology (e.g., gradient, width/depth ratio, channel roughness and sinuosity) and functions appropriate to climate and landform are maintained or enhanced. The development of springs, seeps, or other projects affecting water and associated resources shall be designed to protect the ecological and hydrological functions, wildlife habitat, and significant cultural, historical, and archaeological values associated with the water source. Range improvements will be located away from riparian areas if they conflict with achieving or maintaining riparian function.
4. Grazing practices that consider the biotic communities as more than just a forage base will be designed in order to ensure that the appropriate kinds and amounts of soil organisms, plants, and animals to support the hydrologic cycle, nutrient cycle, and energy flow are maintained or enhanced.

5. Continuous season-long or other grazing management practices that hinder the completion of plants' life-sustaining reproductive and/or nutrient cycling processes will be modified to ensure adequate periods of rest at the appropriate times. The rest periods will provide for seedling establishment or other necessary processes at levels sufficient to move the ecological site condition toward the resource objective and subsequent achievement of the standard.
6. Grazing management practices and range improvements will adequately protect vegetative cover and physical conditions and maintain, restore, or enhance water quality to meet resource objectives. The effects of new range improvements (water developments, fences, etc.) on the health and function of rangelands will be carefully considered prior to their implementation.
7. Grazing management practices will incorporate the kinds and amounts of use that will restore, maintain, or enhance habitats to assist in the recovery of federal threatened and endangered species or the conservation of federally-listed species of concern and other state-designated special status species. Grazing management practices will maintain existing habitat or facilitate vegetation change toward desired habitats. Grazing management will consider threatened and endangered species and their habitats.
8. Grazing management practices and range improvements will be designed to maintain or promote the physical and biological conditions necessary to sustain native animal populations and plant communities. This will involve emphasizing native plant species in the support of ecological function and incorporating the use of non-native species only in those situations in which native plant species are not available in sufficient quantities or are incapable of maintaining or achieving properly functioning conditions and biological health.
9. Grazing management practices on uplands will maintain desired plant communities or facilitate change toward desired plant communities.

## Definitions

**Activity plans:** Allotment Management Plans (AMP), Habitat Management Plans (HMP), Watershed Management Plans (WMP), Wild Horse Management Plans (WHMP), and other plans developed at the local level to address specific concerns and accomplish specific objectives.

**Coordinated Resource Management (CRM):** A group of people working together to develop common resource goals and resolve natural resource concerns. CRM is a people process that strives for win-win situations through consensus-based decision making.

**Desired plant community:** A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan/activity plan objectives established for an ecological site(s). The desired plant community must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

**Ecological site:** An area of land with specific physical characteristics that differs from other areas both in its ability to produce distinctive kinds and amounts of vegetation and in its response to management.

**Erosion:** (v.) Detachment and movement of soil or rock fragments by water, wind, ice, or gravity. (n.) The land surface worn away by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

**Grazing management practices:** Grazing management practices include such things as grazing systems (rest-rotation, deferred rotation, etc.), timing and duration of grazing, herding, salting, etc. They do not include physical range improvements.

**Guidelines (for grazing management):** Guidelines provide for and guide the development and implementation of reasonable, responsible, and cost-effective management actions at the allotment

and watershed level which move rangelands toward statewide standards or maintain existing desirable conditions. Appropriate guidelines will ensure that the resultant management actions reflect the potential for the watershed, consider other uses and natural influences, and balance resource goals with social, cultural/historic, and economic opportunities to sustain viable local communities. Guidelines, and, therefore, the management actions they engender, are based on sound science, past and present management experience, and public input.

**Indicator:** An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be measured based on sound scientific principles. An indicator can be measured (monitored and evaluated) at a site- or species-specific level. Measurement of an indicator must be able to show change within timeframes acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appropriate indicators to be monitored in a particular allotment is a critical aspect of early communication among the interests involved on the ground. The most useful indicators are those for which change or trend can be easily quantified and for which agreement as to the significance of the indicator is broad based.

**Litter:** The uppermost layer of organic debris on the soil surface, essentially the freshly fallen or slightly decomposed vegetal material.

**Management actions:** Management actions are the specific actions prescribed by the BLM to achieve resource objectives, land use allocations, or other program or multiple use goals. Management actions include both grazing management practices and range improvements.

**Objective:** An objective is a site-specific statement of a desired rangeland condition. It may contain qualitative (subjective) elements, but it must have quantitative (objective) elements so that it can be measured. Objectives frequently speak to change. They may measure the avoidance of negative changes or the accomplishment of positive changes. They are the focus of monitoring and evaluation activities at the local level. Objectives may measure the products of an area rather than its ability to produce them, but if they do so, it must be kept in mind that the lack of a product may not mean that the standards have not been met. Instead, the lack of a particular product may reflect other factors such as political or social constraints. Objectives often focus on indicators of greatest interest for the area in question.

**Range improvements:** Range improvements include such things as corrals, fences, water developments (reservoirs, spring developments, pipelines, wells, etc.) and land treatments (prescribed fire, herbicide treatments, mechanical treatments, etc.).

**Rangeland:** Land on which the native vegetation (climax or natural potential) is predominantly grasses, grass-like plants, forbs, or shrubs. This includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

**Rangeland health:** The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained.

**Riparian:** An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lakeshores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not have vegetation dependent on free water in the soil.

**Standards:** Standards are synonymous with goals and are observed on a landscape scale. Standards apply to rangeland health and not to the important by-products of healthy rangelands. Standards relate to the current capability or realistic potential of a specific site to produce these by-products, not to the

presence or absence of the products themselves. It is the sustainability of the processes, or rangeland health, that produces these by-products.

**Terms and conditions:** Terms and conditions are very specific land use requirements that are made a part of the land use authorization in order to assure maintenance or attainment of the standard. Terms and conditions may incorporate or reference the appropriate portions of activity plans (e.g., AMPs). In other words, where an activity plan exists that contains objectives focused on meeting the standards, compliance with the plan may be the only term and condition necessary in that allotment.

**Upland:** Those portions of the landscape which do not receive additional moisture for plant growth from run-off, streamflow, etc. Typically, these are hills, ridgetops, valley slopes, and rolling plains.

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# APPENDIX H—BIOLOGICAL ASSESSMENT

Section 7 consultation with the U.S. Fish and Wildlife Service is ongoing. The Biological Assessment and Biological Opinion will be posted to the ePlanning site (https://eplanning.blm.gov/eplanning-ui/project/13853/510) prior to issuance of the Record of Decision.

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# APPENDIX I—RECLAMATION PLAN

## I.1 INTRODUCTION

Reclamation of public land is required for any surface disturbing activity. A reclamation plan tailored to a specific surface disturbing activity will be required for Federal actions authorized, conducted, or funded by the Bureau of Land Management (BLM) that causes surface disturbance. This appendix details the elements that need to be considered during project planning, project implementation, and post-disturbance steps required to assure timely and proper recovery of the site.

This plan provides a framework for project-specific and site-specific reclamation actions that guide land management toward a future condition for any surface disturbance. Early coordination between the BLM and project proponents is necessary to produce a comprehensive, site specific plan. The site-specific reclamation plan will serve as a binding agreement between project proponents and the land management agencies for the expected reclamation condition of the disturbed lands and may be periodically reviewed and modified as necessary. The reclamation plan will include sufficient monitoring requirements, reports, and components to ensure sufficiency.

Although the proponent will typically develop the reclamation plan, appropriate BLM involvement in preplanning, data inventory, and approval is essential to develop the optimum reclamation proposal. Most determinations regarding what is expected should be made before the reclamation plan is approved and implemented. However, the BLM Authorizing Officer (AO) can modify a plan through adaptive management, to adjust to changing conditions or to correct for an oversight using the best available science; changes should be agreed upon by the project proponent. Approved reclamation and weed control plans and reporting obligations will be required prior to any surface disturbing activity.

## I.2 ECOLOGICAL SITE DESCRIPTION

To understand the variations across the landscape, Natural Resource Conservation Service (NRCS) has classified these different parts into units called ecological sites. Ecological site is defined as “a distinctive kind of land with specific characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.” Any land inventory, analysis, and resulting management decisions require the knowledge of these individual sites and their interrelationships to one another on the landscape.

The Ecological Site Description (ESD) application provides the capability to produce automated ESD from the data stored in its database. An ESD is the official repository for all data associated with the development of forestland and rangeland ESD by the NRCS.

The data comprising an ESD is presented in four major categories:

- Site Characteristics – Identifies the site and describes the physiographic, climate, soil, and water features associated with the site.
- Plant Communities – Describes the ecological dynamics and the common plant communities comprising the various vegetation states of the site. The disturbances that cause a shift from one state to another are also described.
- Site Interpretations – Interpretive information pertinent to the use and management of the site and its related resources.
- Supporting Information – Provides information on sources of information and data utilized in developing the site description and the relationship of the site to other ecological sites.

This information and the ESDs the NRCS have developed to date may be found at the following website: http://esis.sc.egov.usda.gov/Welcome/pgECOLOGICALSITEDESCRIPTIONWelcome.aspx

## I.2.1 Reclamation Plan Requirements/Minimum Standards

Reclamation plans should incorporate the standards set forth in Wyoming BLM Reclamation Policy as described in IM WY-2012-032 and the High Desert District Policy for Reclamation of Disturbed Lands in IM WYD-2012-0005.

## I.2.2 Reclamation Goals

### Goals:

- Short term goal: immediately stabilize disturbed areas and provide conditions necessary to achieve the long-term goal.
- Long term goal: facilitate eventual ecosystem reconstruction to maintain a safe and stable landscape and meet the desired outcomes of the land use plan.
- Reclaim vegetative communities within disturbed areas that will mirror those of healthy communities as described in the ESD.

## I.2.3 Reclamation Objectives:

- Restore vegetative cover and landforms sufficient to maintain healthy, biologically active topsoil; control erosion; and, minimize habitat loss during the life of the well, facilities, or other surface disturbing activities.

In addition:

- Provide conditions and use methods to allow for successful reclamation in the least amount of time relative to site condition.
- Return the land to the desired condition based on ESDs. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological function, vegetative productivity, and habitat function.

## I.2.4 Pre-Disturbance Baseline

Pre-disturbance inventory is a critical part of reclamation planning and provides information on ecological structure and function. This should include inventory of wildlife habitat, species composition, watershed protection, and visual qualities; as well as, characteristics that underlie those values and functions – the plants, soil, and landscape features that may require restoration. The inventory establishes a framework for successful reclamation, monitoring, and evaluation.

The inventory includes two steps necessary to compile complete and accurate information:

1. Gathering existing site-specific information from reliable sources
2. Evaluating on-site ecosystem function and characteristics that may require subsequent restoration.

**Table I-1. Description of Baseline Inventory**

| Activity | Critical Components |
|---|---|
| Initiating baseline inventory | • Identify site location<br>• Contact BLM<br>• Consult soil survey maps<br>• Determine ESD<br>• Consult Wyoming Geographic Information Center (WyGISC) to access aerial photography in color, grayscale, or color infrared (CIR)<br>• Identify wildlife presence or use |
| Conducting baseline inventory | • Travel to site<br>• Verify ESD and soil types<br>• Record vegetation types and distribution on the site using an accepted method for collecting the data<br>• Record topographical landforms and surface hydrological features<br>• Take photographs to provide a visual reference<br>• Document data gathering and photos with GPS coordinates. |

## I.2.5 General Reclamation Best Management Practices

This section identifies best management practices (BMP) that could be suggested as recommendations during interim and final reclamation. These would be BMPs for species other than GSG.

"Live-hauling" topsoil from one location to another location may aid in reclamation success, but should only be considered on a "case-by-case basis" because the ESD for topsoil from one location could be different from its destination. Timing problems could also occur when stripping topsoil from one location and hauling to another location. The quantity of topsoil could likely vary from one location to another location.

The BLM AO may direct the use of containerized plants in not more than gallon-sized pots and germinated from a local seed source. These plants would be planted in clusters to catch snow, retain moisture, and provide a seed source. This would mostly apply to native shrubs such as sagebrush and saltbush with the purpose of quickly establishing the shrub component. Some or all the following practices may be implemented to expedite reclamation:

- Planting bare-root seedlings (shrubs such as sagebrush)
- Importing topsoil to add to spots where it is absent or not productive
- Erecting fences (wildlife friendly) around reclaimed areas to allow for enhanced establishment of vegetation
- Using snow fences or an alternate snow-capture device to capture moisture
- Irrigating reclamation (enough to simulate typical spring and summer moisture) to establish roots
- Irrigating reclamation could be repeated for the first two years but not more than three. A pause in irrigation after three years provides a period for the vegetation to demonstrate persistence before the reclamation can be accepted as complete.

## Vegetation Management

- Reduce vegetation damage during reclamation in adjacent areas.
- Choose native seed mixes that will provide vegetative cover for land use. Where native seed mixes of local genotype are not available, consider the use of appropriate cultivars of native species.
- Plan time of year for seed planting based on the optimal growing conditions for that species, site specific conditions, and the environmental conditions of that growing season.
- BLM approved non-native species used solely for site stabilization should be sterile, or a species unlikely to persist as natives are established.

## Additional Monitoring Components

Project proponent should start post-disturbance collection of cover and composition data in the first growing season after disturbance. Data must be collected using repeatable methods approved by the appropriate land management agency and will be the same methods that were used to describe vegetation for baseline (or reference area). The same methods will be used each time the vegetation is monitored.

## Pre-Development Habitat Management

Use native site seed collection and local seed sources to the maximum extent practicable to maintain genetic diversity of local plant populations. Consider the use of cultivars of native species in the absence of sources of native seeds.

## Exceptions

To facilitate reclamation seeding during the optimal growing seasons, exceptions may be approved providing that the exception granted would minimize surface disturbance outside of the action area.

## Proponent Agreements

The land management agencies will encourage cooperative agreements between the agencies, proponent project proponents, and interested proponents to ensure the success of habitat reclamation.

## Criteria for Determining Reclamation Success

The end result of reclamation success is the return of functional wildlife habitat within the disturbance area.

A. The Rangeland Ecological Site Interagency Manual (WO IB 2011-004) has the following objectives that address the use of ESD which include State and Transition Models:
   - To implement a standardized system to define and describe a common unit for inventory, monitoring, evaluation, and management of rangeland ecosystems.
   - To provide direction for the cooperative development and application of rangeland ESD.

B. The Rangeland Ecological Site Interagency Handbook (mentioned above) goes into detail on use of State and Transition Models and ESD and can be used as a reference when developing reclamation plans using these methods.

C. The current BLM Handbook H-4180-1 contains references to ecological sites, ESD, and reference areas. The site potential is related to transitions and thresholds in the handbook. The handbook also recognizes the Ecological Site Index and ESD may not be available for all assessment areas, but that

where they exist, they should be used. Other vegetation succession models are not mentioned in H-4180-1.

D. The National Range Handbook (H-4410-1) addresses State and Transition Models and ESD and can be used as a reference.

E. The NCRS Ecological Site Inventory Technical Reference (TR 1734-07) also discusses succession and State and Transition Model pathways, and ESD.

F. The NRCS Riparian-Wetland Ecological Site Inventory Technical Reference (TR-1737-7) does the same as TR 1734-07 which also discusses succession and State and Transition Model pathways, and ESD.

If ESDs, which include State and Transition Models, are not written for the project site, the project proponent should work with the land management agencies, WGFD, NRCS, and other local experts to create these products.

## General Reclamation Requirements

Vegetation would be reestablished on a site-specific basis that would meet BLM approval.

### Vegetative Criteria

**Native Forbs:** The average frequency of desirable forbs must be a minimum of 75% of the ESD reference site. Reference sites must be selected in areas of the same ESD and must be mutually agreed upon with the land management agency and WGFD. If this is not possible, the desired plant community for the site may be used. Diversity of forbs on a reclaimed site must be equal to or greater than pre-disturbance composition. Timeframes to determine whether replanting or developing another strategy to meet native forb establishment will be determined upon establishing the ESD.

**Native Shrubs:** The average frequency of the shrub component must be at least 50% of the ESD reference site. This includes both shrubs and sub-shrubs (e.g., winterfat (*Krascheninnikovia lanata*), fringed sage (*Artemisia frigida*), etc.). At least 15% density or frequency of the shrub component must be by the dominant species relative to pre-disturbance composition. The diversity of shrubs must be equal to or greater than the desired plant community. Timeframes to determine whether replanting or developing another strategy to meet native shrub establishment will be determined upon establishing the ESD.

**Native Grasses:** Reclaimed sites must have growth forms and plant diversity representative of the ESD reference site. These are to be planted at rates appropriate to achieve abundance and diversity characteristic of those found in the ESD reference site. Timeframes to determine whether replanting or developing another strategy to meet native grass establishment will be determined upon establishing the ESD.

**Non-Native and Invasive Species:** Reclaimed sites must be free from all species listed on the Wyoming Noxious Weed List. All local, state, and federal invasive[1] plant laws and regulations must be adhered to. Other highly competitive invasive plants, such as downy brome grass, will be controlled. Site specific weed management plans will address management goals and priorities.

**Plant Vigor:** Plants must be resilient as evidenced by well-developed root systems, flowers, and seed heads. All sites to be considered reclaimed must exhibit the sustainability of the above desired attributes. A minimum of one growing season without external influences (irrigation, mat pads, fences, etc.) may satisfy this requirement.

[1] *Invasive species. A species that is not native (or is alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112).*

## Final Reclamation Criteria

### Ground Cover and Ecological Function

To ensure soil stability and nutrient cycling, canopy must be equal to or greater than the pre-disturbance composition and vegetative litter must be decomposing into the soil.

### Vegetative Criteria

**Native Forbs:** The average percent composition and total diversity of forbs must be equal to or greater than pre-disturbance composition. Timeframes to determine whether replanting or developing another strategy to meet native forb establishment will be determined upon establishing the ESD.

**Native Shrubs:** The average frequency of the shrub component must be at least 80% of pre-disturbance composition within eight years. This includes both shrubs and half shrubs (e.g. winterfat, fringed sage, etc.). At least 25% density or frequency of the shrub component must be the dominant species from the reference site. The diversity of shrubs must be equal to or greater than the reference site.

**Native Grasses:** Reclaimed sites must exhibit grass percent composition equal to the reference site. Timeframes to determine whether replanting or developing another strategy to meet native grass establishment will be determined upon establishing the ESD.

**Non-Native/Noxious/Invasive Weeds:** Sites must be free from all species listed on the Wyoming and Federal noxious weed list. All state and federal laws regarding non-native species and noxious weeds must be followed. Aggressive action to eliminate highly competitive invasive species such as cheatgrass and other invasive brome grasses must be taken to prevent spread.

**Plant Vigor:** Plants must be resilient as evidenced by well-developed root systems and flowers. Shrubs will be well established and will exhibit age class structure.

## An Alternative Determination for Reclamation Success

Standards for success will be developed based on performance-based criteria and the ESD. The objectives for each reclamation plan are set with site specific criteria at the field office level, thereby maximizing the unique conditions within each field office.

# I.2.6 Weed Management

- Control the spread of and/or eradicate noxious weeds or other invasive species infestations.
- Mitigation will be applied to all activities to control noxious weeds or other invasive species.
- Weed control will be achieved through Integrated Pest Management approach.
- All vegetation treatments will be assessed for the potential to introduce invasive species before a treatment method is selected.
- BLM will support and cooperate with efforts to manage and control noxious weeds or other invasive plant species, including collaboration with local plans and control efforts.
- All approved revegetation plans will include a weed management plan.

# I.2.7 Monitoring

1. Standard Monitoring Requirements:

    a. Project proponents must use the same locations and methods used at baseline for repeat

photography. Additional locations may be selected to document progress of reclaimed area to demonstrate interim[2] and final reclamation[3] success, and to monitor any identified problems such as erosional features. The site should be photographed once every year normally at the same time period, from the same locations and direction so that photographs are repeated through time. Photographs should be taken during the growing season.

b. Weed inventory: Disturbed and reclaimed areas will be evaluated for noxious and invasive weeds annually until the timeline determined by the ESD has been satisfied. A weed control plan will be written separately under the BLM Integrated Weed Management Program.

c. Erosion control/soil stability: The reclaimed area should be evaluated for any signs of erosion problems annually (until the timeline determined by the ESD has been satisfied) and when the site is subject to erosional events. Identified erosion features should be monitored using repeat photography. Absence of erosion features is a positive indication that the soil is stabilizing.

d. Hydrological function measurements should be documented using Technical Note #346 Erosion condition classification system and the determination of erosion condition class sheet to ensure the of erosion control methods worked during the development phase and the final pad contouring; resulting in the return of the original hydrologic function of the site.

e. Restoration of the landforms visual resource should also be documented, whether returning the location to the original visual classification under the RMP or the original topographic features.

f. Wildlife habitat communities should be monitored to ensure that the goals for sensitive wildlife species are also being met. Reclamation actions will be initiated before the first growing season following disturbance.

2. Following each growing season:

   a. Review and complete a site-specific vegetation monitoring report for areas being reclaimed.

   b. Prepare a written, site-specific prescription for actions to be implemented, including:

      – Reseeding of areas not attaining reclamation success

      – Soil stabilization

      – Weed control needs

      – Mulching/fertilization or other cultural practices prescribed for the following season.

3. If the treatment area is found, through site-specific monitoring data, to be successfully reclaimed, monitoring to confirm reclamation success will continue until the timeline determined by the ESD has been satisfied. The site will also comply with additional management needs, including control of weed infestations.

4. Within one to three years of initiation of reclamation, sites will demonstrate the establishment of a viable desirable seedling frequency. (Pro-action may want to be taken if reclamation is not successful during a good moisture year.) Desirable seedling density or frequency, compared to pre-disturbance composition information, shall consist of a vigorous, diverse, native (or otherwise approved) plant community or ecologically comparable species as approved by BLM AO. If this does not occur the project proponent should coordinate with the BLM, NRCS, WGFD, or other local experts to determine an alternative course of action to ensure full site recovery, the actions prescribed will be implemented as planned and further monitoring will occur as detailed beginning with the first action listed above.

[2] *Interim reclamation may proceed if a project will be dormant for an undetermined amount of time, to provide cover to prevent erosion events and to provide forage for wildlife).*

[3] *Final reclamation occurs when all activities on the location have been completed, recontouring occurs and the seed mix contains all species necessary for habitat recovery.*

If at any time pre-disturbance composition data is not suitable for reclamation success determinations, the project proponent may select a desired plant community in the reference state from the ESD State and Transition model.

## I.2.8 Standard Reporting

The project proponent will provide the BLM with an annual report for all sites disturbed. The report will include:

- Copies of the completed individual site review forms or a BLM-approved electronic report.
- A summary of monitoring data and results, including:
  - Individual site reclamation monitoring reporting data
  - Identification of sites successfully reclaimed by reclamation years (starting with the first growing season)
  - Identification of sites needing additional work or more reclamation activities (adaptive management) by reclamation year
  - Sites proposed for the end of monitoring (i.e., sites that were successfully reclaimed).
- The BLM's useable shape file(s) or geographic information system (GIS) layer(s) that details location, name, type, and extent of:
  - New disturbances
  - Unreclaimed disturbance
  - New reclamation
  - Failed or unsuccessful reclamation
  - Locations of noxious/invasive weed infestation
  - Further vegetation treatments planned (e.g., mulching, matting, and weed control).

On these shape files or GIS layers, *location* shall be given as the legal location and geo-referenced location of the site; *name*, as appears on the BLM Application for Permit to Drill (APD), lease, or other BLM file name for the site; *extent*, as the appropriate component boundary.

## QUALITATIVE MONITORING SHEET

Well Name/ Number _____

Monitoring Date _____

Company _____

Inspector _____

☐ Well Pad ☐ Access Road ☐ Pipeline ☐ Other _____

Topsoil Storage ☐ Stockpile (> 3ft) ☐ Stockpile (< 3ft) ☐ Direct Haul ☐ None

Length of Topsoil Storage (months) _____

Seeding Method ☐ Broadcast ☐ Drill ☐ Other _____

Date Seeded_____ Seed Mix_____

Soil Amendment_____ Date of Amendment Application_____

| Item | Monitoring Requirement | Description | Yes | No |
|---|---|---|---|---|
| 1 | Is seed germination apparent? | Seeds have germinated, seedlings are emerging. | | |
| 2 | Is the area free of undesirable materials? | Trash, construction materials, etc. | | |
| 3 | Is the soil stable with no indications of subsidence, slumping and/or significant erosion? | Rills greater than 2 inches, accelerated erosion is obvious and soils are not being held by plants on site, sheet flow, head cutting in drainages, slopes occurring on or adjacent to reclaimed areas. | | |
| 4 | Absence of noxious weeds? | Perennial pepperweed, Canada thistle, black henbane, leafy spurge, yellow or Dalmatian toadflax, spotted knapweed, Russian knapweed, etc. | | |
| 5 | Absence of other undesirable species? | Cheatgrass, Halogeton, Russian thistle, etc. | | |
| 6 | Is there evidence of good reproductive capability? | Seed production is evident.<br>Amount of tillers, rhizomes, flowers, and/or seed stalks are comparable to the reference site.<br>To answer yes, must have for all three plant types: grass, forb, and shrub. | | |

Item 7: Year of Reclamation

☐ Years 2 - 3 ☐ Years 4 - 5 ☐ Years 6 -7 ☐ Years 8+

**If any of the items are answered "No" above, please identify the problem, attach explanation and photographs, and contact BLM Reclamation Specialist.**

Tech Note #346
U.S. Department of the Interior- Bureau of Land Management
Erosion Condition Classification System by Ronnie Clark

**Well name and number:** _____ **Date:** _____

**Operator:** _____ **Collector:** _____

| Erosional Feature | Potentially Present Yes/ No | Identified Factors (Form 7310-12) | Possible Factor |
|---|---|---|---|
| | | | |
| Soil Movement | | | 14 |
| Surface Litter | | | 14 |
| Surface Rock Fragments | | | 14 |
| Pedestalling | | | 14 |
| Row Patterns | | | 15 |
| Rills | | | 14 |
| Gullies | | | 15 |
| | | | |
| Column Totals | | | |
| **Soil Surface Factor Total** | | | |
| **Class** | | | |

| SSF | Class |
|---|---|
| 1-20% | Stable |
| 21-40% | Slight |
| 41-60% | Moderate |
| 61-80% | Critical |
| 81-100% | Severe |

*Procedure:*
*1. Observe the total sample area and determine an average condition for each of the seven items above.*
*2. Determine if each item is potentially present as only these items will be considered.*
*3. For the items potentially present, indicate appropriate numerical value. (Form 7310-12)*
*4. Total both the weighted values and the potential values for each item.*
*5. Calculate the total percent SSF: (identified factors/ possible factors) X 100.*
*6. Indicate corresponding condition class site is in.*

**Comments:**

Form 7310-12
Determination of Erosion Condition Class
Soil Surface Factor (SSF)

Well Name/Number: _____ Date: _____

Operator: _____ Collector: _____

| | | | | | |
|---|---|---|---|---|---|
| **Soil Movement** | Depth of recent deposits around obstacles, or in microterraces; and/or depth of truncated areas, is 0 – 0.1 in (0 – 2.5 mm).<br>**0 or 3** | Depth of recent deposits around obstacles, or in microterraces; and/or depth of truncated areas, is 0.1 – 0.2 in (2 – 5 mm).<br>**5** | Depth of recent deposits around obstacles, or in microterraces; and/or depth of truncated areas, is 0.2 – 0.4 in. (5 – 10 mm)<br>**8** | Depth of recent deposits around obstacles, or in microterraces; and/or depth of truncated areas, is 0.4 – 0.8 in. (10 – 20 mm)<br>**11** | Depth of recent deposits around obstacles, or in microterraces; and/or depth of truncated areas, is > 0.8 in. (20 mm)<br>**14** |
| **Surface Litter** | No movement, or if present, < 2% of the litter has been translocated and redeposited against obstacles.<br>**0 or 3** | 2 – 10% of the litter has been translocated and redeposited against obstacles.<br>**6** | 10 – 25% of the litter has been translocated and redeposited against obstacles.<br>**8** | 25 – 50%% of the litter has been translocated and redeposited against obstacles.<br>**11** | > 50% of the litter has been translocated and redeposited against obstacles.<br>**14** |
| **Surface Rock Fragments** | Depth of soil removal around the fragments, and/or depth of recent deposits around the fragments is < 0.1 in (2.5 mm).<br>**0 or 2** | Depth of soil removal around the fragments, and/or depth of recent deposits around the fragments is 0.1 – 0.2 in. (2.5 – 5 mm).<br>**5** | Depth of soil removal around the fragments, and/or depth of recent deposits around the fragments is 0.2 – 0.4 in. (5 – 10 mm).<br>**8** | Depth of soil removal around the fragments, and/or depth of recent deposits around the fragments is 0.4 – 0.8 in. (10 – 20 mm).<br>**11** | Depth of soil removal around the fragments, and/or depth of recent deposits around the fragments is > 0.8 in. (20 mm).<br>**14** |
| **Pedestals** | Pedestals are mostly < 0.1 in (2.5 mm) high and/or have a frequency < 2 pedestals/100 ft.<br>**0 or 3** | Pedestals are mostly 0.1 – 0.3 in. (2.5 – 8 mm) high and/or have a frequency of < 2 – 5 pedestals/100 ft.<br>**6** | Pedestals are mostly 0.3 – 0.6 in. (8 – 15 mm) high and/or have a frequency of < 5 – 7 pedestals/100 ft.<br>**9** | Pedestals are mostly 0.6 – 1 in. (15 – 25 mm) high and/or have a frequency of < 7 – 10 pedestals/100 ft.<br>**11** | Pedestals are mostly > 1 in. (25 mm) high and/or have a frequency of > 10 pedestals/100 ft.<br>**14** |
| **Flow Patterns** | If present, < 2% surface area shows evidence of recent translocation and deposition of soil & litter.<br>**0 or 3** | 2 – 10% surface area shows evidence of recent translocation and deposition of soil & litter.<br>**6** | 10 – 25% surface area shows evidence of recent translocation and deposition of soil & litter.<br>**9** | 25 – 50% surface area shows evidence of recent translocation and deposition of soil & litter.<br>**12** | > 50% surface area shows evidence of recent translocation and deposition of soil & litter.<br>**15** |
| **Rills** | If present, are < 0.5 in (13 mm) deep and at intervals > 10 ft.<br>**0 or 3** | Rills are mostly .5 – 1 in. (132 – 25 mm) deep, and at intervals >10 ft.<br>**6** | Rills are mostly 1 – 1.5 in. (25 – 38 mm) deep, and at intervals > 10 ft.<br>**9** | Rills are mostly 1.5 – 3 in. (38 – 76 mm) deep, and at intervals >10 ft.<br>**12** | Rills are mostly 3 – 6 in. (76 – 152 mm) deep, and at intervals > 5 ft.<br>**14** |
| **Gullies** | If present, < 2% of the channel bed and walls show active erosion (no vegetation), gullies make up <2% total area.<br>**0 or 3** | 2 – 5% of the channel bed and walls show active erosion (no vegetation), gullies make up 2 – 5% total area.<br>**6** | 5 – 10% of the channel bed and walls show active erosion (no vegetation), gullies make up 5 – 10% total area.<br>**9** | 10 – 50% of the channel bed and walls show active erosion (no vegetation), gullies make up 10 – 50% total area.<br>**12** | Over 50% of the channel bed and walls show active erosion (no vegetation), gullies make up >50% total area.<br>**15** |

# ATTACHMENT A—RECOMMENDED RECLAMATION PRACTICES FOR ENSURING SUCCESSFUL AND TIMELY ECOSYSTEM RECLAMATION

## RECOMMENDED BEST MANAGEMENT PRACTICES FOR HANDLING SUITABLE SOILS TO MAINTAIN SOIL QUALITY

### Suggestions on Stockpiling Suitable and Unsuitable Soils to Maintain Soil Quality

*The methods suggested in this section have been documented to improve reclamation success; however, it is up to the project proponent to utilize their judgment, expertise, and the latest research and information to achieve desired results.*

Stockpiled topsoil should not be piled too deeply or too shallow. The taller or deeper the piles the more soil is buried under large amounts of pressure resulting in compaction. Soil buried deep in the pile also has little exposure to oxygen resulting in anaerobiosis; deeply buried soil also has no organic matter input. Both of these problems reduce soil quality.

Shallow or small topsoil stockpiles have large footprints on the land surface with the disadvantage of covering greater areas of undisturbed soil which will, in turn, require revegetation, resulting in a greater overall amount of disturbed soil. Smaller or shallow stockpiles also have a greater surface area per amount of soil stored which increases exposure of the stockpiled soil to wind and water erosion. The surface of soil stockpiles should always be vegetated to minimize erosion losses.

- Salvaged stockpiles of suitable soil should be no deeper than four meters (13 feet) and should be less where possible with the understanding that greater surface disturbance may occur.
- Stockpile slopes should not exceed 5:1 angles (20% slopes) to allow for seeding and minimize erosion.
- Suitable soil stockpiles should be located in areas to prevent their disturbance and contamination by project activities. They should not be placed in streambeds or ephemeral drainages where they may be washed away. They should be protected from wind erosion.
- A perimeter ditch/berm can be constructed around the stockpile for topsoil conservation and sediment control where necessary.
- All suitable soil stockpiles should be seeded with native cool season grass to provide cover and protect them from water and wind erosion. Before seeding, the stockpile may be scarified along contours to minimize wind and water erosion.
- If soil horizons or layers are to be stratified during soil salvage (stripping) operations, soil maps should be made of the well pad area to identify depths of soil horizons and surface slope. The area to be cleared of soils should then be divided into strips the size of the blades or equipment being used for soil removal. The depth of soil removal from each swath should be clearly marked so that equipment operators are removing a uniform layer from each strip. After the topsoil is removed from the area in this manner, the subsoil can then be removed in the same fashion, strip by strip, each strip at a uniform depth.

# SOIL AMENDMENTS

- Soil amendment(s) may be used in reclamation if the soil is lacking the necessary chemical, biological, physical and/or organic materials to support sustaining growth of suitable plant materials. The soil type, soil characteristics, geographic location, along with soil mapping resources available should provide the information necessary to define the soil amendment.
- The Project Proponent should state what applying soil amendments is intended to accomplish. Soil amendment plans should be provided, including what amendments will be applied, method of application, and timing relative to other reclamation activities (i.e. stockpiling, seeding, and ripping).
- The soil type is defined by the soil samples obtained prior to, or in some cases, after disturbance takes place. Soil amendments must be scientifically calculated based on the soil characteristics to provide the most cost efficient and best assurances for successful reclamation.
- Soil amendments include but are not limited to the following: Weed free grass hay, weed free wood chips or other weed free cellulosic materials, gypsum, elemental sulfur, and fertilizer.

## Limited Reclamation Potential (LRP)

Areas possessing unique landscape characteristics such as sensitive geologic formations, extremely limiting soil conditions, biological soil crusts, badlands, rock-outcrops, etc., often make reclamation success impractical and/or unrealistic due to physical, biological, and/or chemical challenges. When disturbed, these areas may require unconventional reclamation strategies to address the requirements established by the Wyoming Reclamation Policy and the HDD Policy for Reclamation of Disturbed Lands.

LRP areas such as powdery soil, moisture limited soils, etc., would be avoided if mitigating/reclaiming them is not possible. Pre and post construction soil sampling would be required in these areas. Seed collection or transplanting plants may be required to reestablish these areas.

# SUGGESTIONS ON VEGETATION AND SOIL MONITORING

Examples of monitoring components are listed below:

- Reference: http://agriculture.wy.gov/forms/natres/rangelandmonitoring.pdf

# SUITABLE SOIL INVENTORY

- Soil characteristics may strongly influence reclamation efforts. Fundamental characterization of soils ahead of disturbance can identify potential problems, so they can be addressed during disturbance, soil stockpiling and reclamation, instead of waiting for reclamation failure.
- The phrase “suitable soil” is used mainly because of confusion over the definition of topsoil. Soil depth, pH, electrical conductivity, texture, surface features (e.g. barren, rocky, crusty, plant litter), and organic matter content are characteristics that may be used to determine if a soil is suitable. Other information may be needed. See: “Successful restoration of severely disturbed lands: Overview of critical components,” B-1202, (and available for free at http://ces.uwyo.edu/PUBS/B1202.pdf.).
- Soil characteristics that can signal a high probability of reclamation problems include: pH, electrical conductivity, soil texture, surface/subsurface features, sodium adsorption ratio, calcium carbonate content, soil compaction, and saturation percentage. The listed characteristics below will be addressed by the Proponent in the site-specific reclamation plan approved by the BLM.

- Soils with pH 7.8 and higher progressively become less suitable for reclamation and will be addressed by the Operator in the site-specific reclamation approved by the BLM.
- An electrical conductivity of soil greater than eight deciSiemens per meter (dS/m) and any increase in salt content of the soil above 0.5 dS/m will progressively negatively affect the establishment and growth of plants. Soils exhibiting these characteristics will be addressed by the Operator in the site-specific reclamation plan approved by the BLM.
- Soils with textures representing clay, sand, or loamy sand will be addressed by the Operator in the site-specific reclamation plan approved by the BLM.
- Surface and subsurface soil in and through the root zone dominated by coarse material greater than two millimeters in diameter and greater than 40% in the soil profile to be stockpiled may signify reclamation difficulties and will be considered in the site-specific reclamation plan by the BLM and Proponent.
- Sodium adsorption ratio (SAR) is a key diagnostic soil trait that may be determined for soils to be disturbed and placed in the suitable soil stockpile and will be addressed by the Operator in the site-specific reclamation plan approved by the BLM.
- Calcium carbonate content (percent lime) will control the amount of plant available phosphorus and will determined in the site-specific reclamation plan by the Operator and approved by the BLM.
- The soil saturation percentage will control the ability for plants to germinate and survive after reclamation actions have been taken by the Operator and will be addressed by the Operator in the site-specific reclamation plan approved by the BLM.

## SITE PREPARATION

It is important to consider diversity in seedbed preparation to account for various seed sizes and establishment strategies of different species. Consideration should be given for seed-safe sites, water infiltration and collection, shade, and frost protection.

## RECONTOURING

Trees, shrubs, and ground cover adjacent to disturbance areas but not cleared from rights-of-way (ROW) require protection from construction damage. Recontouring to preconstruction condition as well as restoration of normal surface drainage is required.

## ROAD RECLAMATION GUIDELINES

Road reclamation guidelines are as follows:

- Determine the desired level of obliteration and reclamation. Determine whether there are alternative short- or long-term uses for roads.
- Determine short and long-term reclamation objectives and goals. Identify the monitoring methods to determine reclamation success or failure and possible mitigation.
- Reclaim the road; the effort may include ripping and scarifying the surface, removing culverts and other flow structures, recontouring cut and fill slopes to provide for complete removal of the road, and total recontouring to the original topographic profile.
- Reclaim vegetation to standards outlined in the section on “criteria for reclamation.”
- Establish mitigation measures to remedy problems identified by monitoring.

# NON-NATIVE AND INVASIVE SPECIES

One of the land management agencies' highest priorities is to promote ecosystem health, and one of the larger obstacles to achieving this goal is the rapid expansion of non-native and invasive species across public lands. Invasive plants can dominate sites and often cause long-term changes to native plant communities. If not eradicated or controlled, invasive species will jeopardize the success of reclamation. Invasive species can slow reclamation success or halt it altogether. Right-of-Way (ROW), mineral lease, mining claim, and permit holders are required to monitor and control invasive species on public land as stipulated within their permits and authorizations.

# INVASIVE PLANT MANAGEMENT PLAN FOR CONSTRUCTION AND RECLAMATION ACTIVITIES

Disturbed sites can provide ideal opportunities for invasive plant species to propagate. Invasive plants can be transferred to the disturbed site from adjoining areas and out-compete desired vegetation during reclamation and/or spread to new areas. The best approach to combat invasive species is to use careful suitable soil handling and an appropriate seed mix. Pre-disturbance planning, including early weed management for invasive species is vital to reduce costs and ensure successful reclamation.

- Assess for noxious and invasive weed species before initiating surface disturbing activities, during disturbance, during interim and final reclamation, and after reclamation is completed.
- Web address for the Wyoming Weed and Pest Council: http://www.wyoweed.org/.
- Apply invasive species control treatments.
- Monitor invasive plant species at least annually to evaluate success of control treatments and determine if continued treatment is necessary.

The vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation or as deemed desirable by land management agencies in review and approval of the reclamation plan. No single species will account for more than 30% total vegetative composition unless it is evident at higher levels in the adjacent landscape. Vegetation canopy cover production and species diversity shall approximate the surrounding undisturbed area.

# SEED

On all areas to be reclaimed, seed mixtures are required to be certified noxious weed free and site specific, composed of the same native species as determined in the Desired Plant Community/ESD or early successional species consisting of pioneer species, including seasonal or annual species (that may only be evident at certain times of the year), that will lead to a similar climax community as that disturbed. Site preparation and species choices must ensure soil stability.

A Desired Plant Community/ESD species composition list must be developed for each site to ensure proper community composition, function, and structure. This will ensure that the type of vegetative community replaced is compatible with climate and soil types and should make it easier for the project proponent to successfully restore and stabilize specific sites.

Livestock palatability and wildlife habitat needs should be given consideration in seed mix formulation during reclamation within areas of important wildlife habitat (crucial winter range, etc.); provision shall be made for the replacement of native browse and forb species. Bureau of Land Management guidance for native seed use is the BLM Manual 1745 and Executive Order (E.O.) 13112 (Invasive Species, 64 Code of Federal Regulations [CFR] 6183).

## Describe Seeding Methods

- Different plant species may require different conditions (e.g. seeding depth, seed scarification, mixing, and timing) for optimal germination success. Seeding methods should match germination characteristics of species in the seed mix and consider timing of planting to maximize germination and establishment of all reclamation species.
- The Proponent will describe when seeding will occur and specify the methods they will use for seeding, including differential handling for different species (e.g. broadcast vs. drilling vs. imprinting), and seeding depth in the site-specific reclamation plan. Re-seeding may need to occur if invasive and/or noxious weeds prevent establishment of the seed mix.

A germination test for Pure Live Seed (PLS) basis should be used (http://efotg.sc.egov.usda.gov/references/public/WY/pm6.pdf).

## Germination Test

A germination test samples for total viability, including the sum of all seeds (of a "kind" listed on the label) actually germinating using standard laboratory methods plus hard seed and/or dormant seed.

**Percent Germination:** A germination test determines the capability of a seed lot to produce normal seedlings under favorable controlled conditions. Total germination is the percent germination added to the percent hard and/or dormant seed. Anything under 100% total germination represents the presence of dead seed and/or seed that doesn't produce a shoot or root. Germination may also be estimated by the use of a tetrazolium chloride test (TZ test) in which seeds are stained with a dye to determine viability. Viable seed with live (respirating) tissues will stain a red color. However, not all states recognize the use of a TZ test for all species.

**Dormant Seed:** Includes hard seed, refers to the portion of the seed sample that doesn't germinate during the seed test. Reasons for dormant seed are: 1) the seed coat is impervious to water, and/or 2) internal structures within the seed prohibit oxygen exchange. Hard seed may germinate at a later date and produce a viable plant, or it may germinate and succumb to competition, or it may never germinate at all.

The higher the germination percentage, the better. Germination of most grass species is normally above 80% and should not be lower than 60%. Germination of some native grasses, forbs, and shrubs may be lower, but can vary widely according to species.

The germination test date should also be current. Grass, forb and legume seed should be updated every nine to 18 months depending on state laws. Flower, shrub, and tree seed should be updated every nine months.

## Standard Seed Mixtures

Care and planning must be taken to choose mixes and amounts that will benefit under site-specific conditions. Planning and thought must also go into selecting successful planting and site-preparation techniques. All sites must be planted with a diverse mix of grasses, forbs, and shrubs to be considered successful. The project proponent is ultimately responsible for successful restoration of disturbed sites. Seed mixes should be based on and the Desired Plant Community that is achievable according to the ESD. When appropriate native plant materials are not commercially available, use of local collections or adapted species that perform similar function may be used in lieu of the exact species described the ESD that has been shown to be successful in previous trials. Return of cover should be gauged by comparison with actual pre-disturbance site conditions and/or reference areas. Alternate seed mixes can be submitted by the project proponent to the BLM for review and approval prior to use. The final goal is to restore disturbed sites so that they closely resemble predisturbance native plant communities. Some standard seed mixes are available

for the Field Office and contain only native species. If the use of a non-native species is desired, documentation of the need is required by the BLM policy. Non-native species may be considered for erosion and weed control. Seed mixtures consisting of sterile annual cover crops, such as triticale hybrid, can be used. Non-native species may be considered in some circumstances to aid the revegetation of native species as outlined in the Wyoming Reclamation Plan. As stated in the Wyoming Reclamation Plan (IM WY2012-032) "Select non-native plants only as an approved short term and non-persistent (i.e. sterile) alternative to native plant materials. Ensure the non-natives will not hybridize, displace, or offer long-term competition to the endemic plants, and are designed to aid in the re-establishment of native plant communities." Follow-up seeding or corrective erosion control measures will be required on areas of surface disturbance that fail to meet reclamation success standards within a reasonable time.

## Seed Mixes

The need to provide multifunctional and sustainable seed mixes for interim and final reclamation and soil stability is driven by a desire to increase potential for successful and timely re-vegetation and site stability. Plant diversity and habitat functionality are directly impacted by the seed choices applied to an area slated to be reclaimed or restored. To maintain as much stability and ecological function this section makes recommendations to specifically aid a proponent's selection process.

- Select site-appropriate, adapted native plant materials based on the ESD, Desired Plant Community, and commercially available native species adapted to the species identified in the Desired Plant Community/ESD. Seeds may be obtained from commercial sources of certified weed-free seed mixes. Alternatively, local collections may be used provided they are collected in an area without weedy species. Any seed used for reclamation should be certified weed free and have the same standards required as commercially purchased seed.
- Perennial naturalized species may be used when attempts to reclaim using native plants have not succeeded for a minimum of five full growing seasons. Reclamation should succeed using native species if soils are properly managed, precipitation is not limiting, seed mixes are carefully selected, and seeded areas protected from grazing.
- Based upon site-specific conditions, a decision may be made to use non-natives sooner than identified above and will be used in only unique conditions defined in the site-specific reclamation plan and approved by the AO.

## Mulch

Use of mulch during reclamation may enhance chances for successful vegetation reestablishment. Mulches can help control wind and water erosion, retain and collect seed, increase and prolong soil water capacity, and add organic compounds to the soil. Mulches are best applied after seeding to ensure proper seed contact with soil. Mulch may include hay, small-grain straw, wood fiber, live mulch, cotton, jute, or synthetic netting. Straw mulch should contain fibers long enough to facilitate crimping and provide the greatest cover.

When mulching with cereal grain straw or grass hay, apply in sufficient amounts to provide 70% ground cover. Mulch rate shall be determined using current erosion prediction technology to reach the soil erosion objective (NRCS 2006[4]).

When mulching with wood products such as wood chips, bark, or shavings or other wood materials, apply to a 2-inch thickness if the soil is not well-drained and to a 3- to 4-inch thickness if drainage is good. More finely textured mulches, which allow less oxygen penetration than coarser materials, should be no thicker than one or two inches. The mulch material shall provide no greater than 80% ground cover in order to ensure adequate air drainage (NRCS 2006).

[4] *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin: https://www.nrcs.usda.gov/sites/default/files/2022-10/AgHandbook296_text_low-res.pdf.*

Gravel or other inorganic material shall be applied approximately two inches thick and shall consist of pieces 0.75 inch to two inches in diameter. The mulch material shall provide no more than 90% ground cover in order to ensure adequate air drainage (NRCS 2006).

Mulch shall be applied at a rate that achieves 50% ground cover to provide protection from erosion and runoff and yet allow adequate light and air penetration to the seedbed to ensure proper germination, emergence, and disease suppression (NRCS 2006).

Any mulch used must be certified free from noxious or invasive weed seeds.

## Live Plantings

Live plants can be planted on disturbed sites and, with proper site preparation, can greatly enhance restoration efforts and shorten time frames. Proponents can buy bare root and container stock directly from vendors or can contract seed collection and growth from local growers. Another strategy is to use an excavator to collect clumps of plants from the site and plant them either on reserved topsoil piles and/or on restoration sites during recontouring. These clumps can provide native seed and soil flora as well as collect precipitation and provide shade for newly emerging plants.

# APPENDIX J—SEASONAL WILDLIFE RESTRICTIONS

## J.1 ALTERNATIVE A

**Table J-1. Seasonal Wildlife Restrictions**

| Affected Areas | Restriction | Restricted Area |
|---|---|---|
| Big game crucial winter range | November 15–April 30 | Pronghorn, elk, moose, and mule deer crucial winter ranges |
| Big game birthing areas | May 1–June 30 | Designated birthing areas |
| Elk calving areas | May 1–June 30 | Designated calving areas |
| Mountain plover aggregation areas | April 10–July 10 | ¼ mile of aggregation areas |
| Golden eagle | February 1–July 31 | ½ mile of active nests |
| Ferruginous hawk | February 1–July 21 | 1 mile of active nests |
| Other raptors | February 1–July 31 | ½ mile of active nests |

## J.2 ALTERNATIVE B

**Table J-2. Seasonal Wildlife Restrictions**

| Affected Areas | Restriction | Restricted Area |
|---|---|---|
| Big game crucial winter range | November 15–April 30 | Pronghorn, elk, moose, and mule deer crucial winter ranges |
| Big game birthing areas | May 1–June 30 | Designated birthing areas |
| Fisheries | March 15–July 31 and September 15–November 30 | Within a ¼ mile of riparian areas |
| Mountain plover aggregation areas | April 10–July 10 | ¼ mile of aggregation areas |
| Raptors | February 1–July 31 | Within 2 miles of active and historic nests |

## J.3 ALTERNATIVE C

**Table J-3. Seasonal Wildlife Restrictions**

| Affected Areas | Restriction | Restricted Area |
|---|---|---|
| Big game crucial winter range | November 15–April 30 | Pronghorn, elk, moose, and mule deer crucial winter ranges |
| Big game birthing areas | May 1–June 30 | Designated birthing areas |
| Mountain plover aggregation areas | April 10–July 10 | 100 feet of aggregation areas |
| Raptors | February 1–July 31 | Within ½ mile of active nests |

# J.4 ALTERNATIVE D

**Table J-4. Seasonal Wildlife Restrictions**

| Affected Areas | Restriction | Restricted Area |
|---|---|---|
| Big game crucial winter range | November 15–April 30 | Pronghorn, elk, moose, and mule deer crucial winter ranges |
| Big game birthing areas | May 1–June 30 | Designated birthing areas |
| General raptor | March 1–August 15 | ½ mile of occupied and historic nest sites |
| Bald eagle | February 1–August 15 | 2 ½ miles of occupied and historic nest sites |
| Burrowing owl | April 1–September 15 | ¼ mile of occupied and historic nest sites |
| Ferruginous hawk | February 1–July 31 | 1 mile of occupied and historic nest sites |
| Golden eagle | February 1–July 31 | ½ mile of occupied and historic nest sites |
| Mountain Plover | April 10–July 10 | ¼ mile of active nest |
| Migratory birds | February 1–August 31 | Immediate area of nest |
| Fisheries | March 15–July 31<br>September 15–November 30 | Fish bearing streams |

# J.5 PROPOSED RMP

**Table J-5. Seasonal Wildlife Restrictions**

| Affected Areas | Restriction | Restricted Area |
|---|---|---|
| Big game crucial winter range | November 15–April 30 | Pronghorn, elk, moose, and mule deer crucial winter ranges |
| Big game birthing areas | May 1–June 30 | Designated birthing areas (including Elk Parturition area within Steamboat Mountain ACEC) |
| General raptor | March 1–August 15 | ½ mile of occupied and historic nest sites |
| Bald eagle | February 1–August 15 | 2 ½ miles of occupied and historic nest sites |
| Burrowing owl | April 1–September 15 | ¼ mile of occupied and historic nest sites |
| Ferruginous hawk | February 1–July 31 | 1 mile of occupied and historic nest sites |
| Golden eagle | February 1–July 31 | ½ mile of occupied and historic nest sites |
| Mountain Plover | April 10–July 10 | ¼ mile of active nest |
| Migratory birds | February 1–August 31 | Immediate area of nest |
| Fisheries | March 15–July 31<br>September 15–November 30 | Fish bearing streams |

# APPENDIX K–LAND TENURE ADJUSTMENT CRITERIA

The Federal Land Policy and Management Act of 1976 (FLPMA) provides for retention of the public lands in federal ownership and management by the Bureau of Land Management (BLM) for multiple uses. FLPMA and other federal laws, executive orders, and policies suggest criteria to use when categorizing public lands for retention or disposal, and for identifying acquisition priorities. Disposal by sale, exchange, or Recreation and Public Purpose (R&PP) patent remains an option if such an action would serve an important objective and have a public benefit.

The following is a list of suggested criteria to consider in land tenure adjustment proposals, but it is not considered all-inclusive. These criteria are meant to guide and streamline consideration of land tenure adjustment proposals.

Criteria for Retention or Acquisition:

- Important, crucial, or critical habitat for fish, wildlife, and plants
- Riparian areas and wetlands
- Parcels that provide access to larger blocks of public land
- Lands with special designation or management emphasis
- Significant cultural resources
- Recreation opportunities and benefits
- Contaminated and physical hazard conditions
- Mineral development potential.

Criteria for Disposal:

- Parcels difficult or costly to administer
- Parcels more suitable for management by another federal or state agency
- Parcels of special importance to local communities.

Transfer to other public agencies will also be considered if improved management efficiency would result. Prior to any disposal, a site-specific analysis must determine that the lands considered contain no significant wildlife, recreation, or other resource values, the loss of which could not be mitigated, have no overriding public values, and represent no substantial public investments. Land tenure adjustments must serve the public interest. Exchange will be the preferred method for disposals.

## K.1 EXCHANGES

Land exchanges are the preferred method of land tenure adjustments, based on the following criteria:

- Land exchanges that serve the national interest and are beneficial to BLM programs or that support the programs of other agencies (reference Sections 102, 205, and 206 of FLPMA) would be promoted.
- Transfer of leasable minerals out of federal ownership should be avoided except when non-federal leasable minerals are to be received in return. It is preferable to trade both surface and subsurface (mineral) estates.

- Exchanges should involve lands similar in character and/or value. Lands acquired by the BLM in an exchange will be retained under federal ownership or control.
- Land considered for disposal by exchange will include reservations for public and administrative access to adjacent Federal and state managed lands.
- Exchanges for consolidation of ownership within BLM and Congressionally designated management units.
- Exchanges should not be made solely for the purpose of blocking up federal land ownership.

## K.2 SALES

Public land sale proposals are the result of a BLM initiative or in response to expressed public interest or need. Lands to be considered for disposal, at a minimum, must meet the following criteria as outlined in Section 203 of the FLPMA:

- They are difficult and uneconomical to manage and are not suitable for management by another federal department or agency.
- Disposal would serve important public objectives, including but not limited to, community expansion or economic development, that could not be achieved prudently or feasibly on land other than public lands and that outweigh other public objectives or values.
- The tract was acquired for a specific purpose, and the tract is no longer required for that purpose or any other federal purpose.
- Land sales will include reservations for public and administrative access to adjacent Federal and state managed lands.

## K.3 SALES AND EXCHANGES INVOLVING WETLANDS

Bureau policy is to retain wetlands in federal ownership unless federal, state, public, and private institutions, and parties have demonstrated the ability to maintain, restore, and protect wetlands and riparian habitats on a continuous basis (BLM Manual 6740). Sales and exchanges may be authorized when:

- The tract of public wetlands is either so small or remote that it is uneconomical to manage.
- The tract of public wetlands is not suitable for management by another federal agency.
- The patent contains restrictions of uses as prohibited by identified federal, state, or local wetlands regulations.
- The patent contains restrictions and conditions that ensure the patentee can maintain, restore, and protect the wetlands on a continuous basis.

## K.4 RECREATION AND PUBLIC PURPOSES LEASE/PATENT

The objective of the R&PP Act is to meet the needs of state and local governmental agencies and other qualified organizations for public lands required for recreational and public purposes. Use of the R&PP Act protects public values in the land through its reversionary provisions and helps qualified entities obtain the more liberal pricing authorized under the Act.

Public lands shall be conveyed or leased only for an established or definitely proposed project for which there is a reasonable timetable of development and satisfactory development and management plans. No more land than is reasonably necessary for the proposed use shall be conveyed.

# K.5 DESERT LAND ENTRIES

The purpose of the Desert Land Law is to permit the reclamation by irrigation of arid public land through individual effort and private capital (reference 43 Code of Federal Regulations §2520), based on the following criteria:

- Lands that will not produce any reasonably remunerative agricultural crop by the usual means or methods of cultivation, without artificial irrigation, may be considered for a desert land entry. The lands must be untimbered, surveyed, unreserved, and unappropriated. Tracts need not be contiguous, but shall be sufficiently close to each other to be managed satisfactorily as an economic unit.
- The proposed crop may include any agricultural product to which the land under consideration is generally adapted and which would return a fair reward for the expense of producing it.
- All Desert Land Entry applications will be coordinated with the Wyoming State Engineer and the Soil Conservation Service.

# K.6 ACQUISITION

Acquisition of lands will be considered, if in compliance with the Resource Management Plan (RMP), to facilitate various resource management objectives and to acquire lands with high resource values, based on the following criteria (Sec 203 of the FLPMA):

- The preferred method for acquisition will be through exchange.
- Acquisitions of private lands will be pursued only with willing landowners.
- BLM would extend applicable management to acquired lands similar to adjacent or similar BLM managed lands.

# K.7 LANDS SUITABLE FOR DISPOSAL AND ACQUISITIONS

The identification of a public land as having met FLPMA criteria for disposal is NOT, in itself, a decision to dispose of public lands. The process for disposing of public lands via FLPMA Section 203 (Sales), Section 206 (Exchanges), or FLPMA section 212 (R&PP Act) is a lengthy multi-decisional process requiring a comprehensive site-specific analysis, survey, and follow-on decisions prior to a final decision being made by the Department of Interior. There are no official plans to dispose of public lands within the Rock Springs Field Office planning area. Table K-1 lists lands identified for disposal by exchange, sale, or R&PP.

**Table K-1. Lands Identified for Disposal**

| Acres | Township | Range | Section | Description |
|---|---|---|---|---|
| 78.71 | T. 12 N. | R. 105 W. | 15 | Lot 7, SE¼NW¼ |
| 130.64 | T. 12 N. | R. 111 W. | 2 | Lots 7-10 |
| 305.31 | T. 12 N. | R. 111 W. | 3 | Lots 11-12, S½SW¼, SE¼ |
| 17.53 | T. 12 N. | R. 111 W. | 6 | Lots 11, 12, 13 |
| 3.61 | T. 12 N. | R. 111 W. | 7 | Lots 16-17 |
| 30.88 | T. 12 N. | R. 111 W. | 20 | Lot 9 |
| 25.30 | T. 12 N. | R. 111 W. | 23 | Lot 6 |
| 28.54 | T. 12 N. | R. 111 W. | 26 | Lots 1-2 |

| Acres | Township | Range | Section | Description |
|---|---|---|---|---|
| 59.92 | T. 12 N. | R. 111 W. | 27 | Lots 1-4 |
| 16.22 | T. 12 N. | R. 111 W. | 28 | Lot 4 |
| 24.46 | T. 12 N. | R. 112 W. | 1 | Lots 5-7 |
| 7.39 | T. 12 N. | R. 112 W. | 13 | Lot 4 |
| 18.98 | T. 12 N. | R. 112 W. | 27 | Lot 4 |
| 38.44 | T. 12 N. | R. 112 W. | 28 | Lots 1-2 |
| 128.00 | T. 13 N. | R. 101 W. | 18 | All or portions of Lots 6, 12, 13, 16 and 17 |
| 107.61 | T. 13 N. | R. 102 W. | 13 | Lots 1, 2, 3 |
| 600.00 | T. 13 N. | R. 111 W. | 34 | All except SE¼SE¼ |
| 29.61 | T. 13 N. | R. 111 W. | 35 | Lots 1-3 |
| 640.00 | T. 17 N. | R. 106 W. | 12 | All |
| 640.00 | T. 17 N. | R. 106 W. | 14 | All |
| 580.14 | T. 17 N. | R. 107 W. | 4 | Lots 7-9, S½N½, S½ |
| 315.62 | T. 17 N. | R. 107 W. | 6 | Lots 10-14, SW¼NW¼, E½SW¼ |
| 640.00 | T. 17 N. | R. 107 W. | 8 | All |
| 300.00 | T. 17 N. | R. 107 W. | 10 | N½SW¼, E½SW¼SW¼, SE¼SW¼, SE¼ |
| 640.00 | T. 17 N. | R. 107 W. | 12 | All |
| 640.00 | T. 17 N. | R. 107 W. | 14 | All |
| 637.20 | T. 17 N. | R. 107 W. | 18 | Lots 5-8, E½, E½W½ |
| 640.00 | T. 17 N. | R. 108 W. | 12 | All |
| 640.00 | T. 18 N. | R. 103 W. | 4 | All |
| 640.00 | T. 18 N. | R. 103 W. | 6 | All |
| 640.00 | T. 18 N. | R. 103 W. | 8 | All |
| 640.00 | T. 18 N. | R. 103 W. | 16 | All |
| 640.00 | T. 18 N. | R. 103 W. | 20 | All |
| 636.40 | T. 18 N. | R. 104 W. | 2 | Lots 5-8, S½N½, S½ |
| 640.00 | T. 18 N. | R. 104 W. | 10 | All |
| 640.00 | T. 18 N. | R. 104 W. | 12 | All |
| 640.00 | T. 18 N. | R. 104 W. | 14 | All |
| 640.00 | T. 18 N. | R. 104 W. | 20 | All |
| 640.00 | T. 18 N. | R. 104 W. | 22 | All |
| 77.66 | T. 18 N. | R. 105 W. | 8 | Lots 5, 17 |
| 317.48 | T. 18 N. | R. 105 W. | 10 | Lots 3-4, 5-6, 11-14 |
| 551.69 | T. 18 N. | R. 105 W. | 18 | Lots 5, 7, 8, N½NE¼, NE¼NW¼, SE¼, E½SW¼ |
| 345.00 | T. 18 N. | R. 105 W. | 20 | All except acreage sold previously to Solid Waste District #1 |
| 640.00 | T. 18 N. | R. 105 W. | 24 | All |
| 320.00 | T. 18 N. | R. 105 W. | 30 | E½ |
| 240.00 | T. 18 N. | R. 106 W. | 14 | E½SW¼, SE¼ |
| 36.59 | T. 18 N. | R. 106 W. | 18 | Lot 8 |
| 640.00 | T. 18 N. | R. 106 W. | 24 | All |
| 232.72 | T. 18 N. | R. 107 W. | 14 | Lots 9-12, 15, 16 |
| 455.70 | T. 18 N. | R. 107 W. | 16 | Lots 3-7, 10-15 |
| 632.56 | T. 18 N. | R. 107 W. | 18 | Lots 6-8, E½, E½NW¼, E½SW¼. |

| Acres | Township | Range | Section | Description |
|---|---|---|---|---|
| 640.00 | T. 18 N. | R. 107 W. | 20 | All |
| 200.00 | T. 18 N. | R. 107 W. | 24 | S½NW¼NE¼, SW¼NE¼,N½SE¼NE¼, NE¼NE¼, SW¼NW¼, SE¼NW¼ |
| 109.98 | T. 18 N. | R. 107 W. | 26 | Lots 9, 10, 16, 18 |
| 640.00 | T. 18 N. | R. 107 W. | 32 | All |
| 214.84 | T. 18 N. | R. 107 W. | 34 | Lots 3-4, NW¼, SW¼, S½NW¼ SE¼, S½SE¼ |
| 639.92 | T. 18 N. | R. 108 W. | 2 | Lots 5-8, S1/2N1/2, S1/2 |
| 640.48 | T. 18 N. | R. 108 W. | 4 | Lots 5-8, S1/2N1/2, S1/2 |
| 640.00 | T. 18 N. | R. 108 W. | 10 | All |
| 640.00 | T. 18 N. | R. 108 W. | 12 | All |
| 640.00 | T. 18 N. | R. 108 W. | 14 | All |
| 640.00 | T. 18 N. | R. 108 W. | 22 | All |
| 640.00 | T. 18 N. | R. 108 W. | 24 | All |
| 640.00 | T. 18 N. | R. 108 W. | 26 | All |
| 640.00 | T. 18 N. | R. 108 W. | 36 | All |
| 40.00 | T. 19 N. | R. 103 W. | 10 | NE1/4NW1/4 |
| 72.08 | T. 19 N. | R. 103 W. | 18 | Lots 1-2 |
| 452.90 | T. 19 N. | R. 104 W. | 28 | Lots 1-2, 7-16 |
| 320.00 | T. 19 N. | R. 104 W. | 34 | E½ |
| 274.12 | T. 19 N. | R. 105 W. | 4 | Lots 5, 7-12, S½NE¼ |
| 20.00 | T. 19 N. | R. 105 W. | 4 | S½NW¼SE¼ |
| 167.62 | T. 19 N. | R. 105 W. | 14 | Lots 9-10, 16, 31-37 |
| 503.83 | T. 19 N. | R. 105 W. | 16 | Lots 9-10, 16, 31-37 |
| 134.83 | T. 19 N. | R. 105 W. | 28 | Lots 3-5, 32-33, 35 |
| 411.61 | T. 19 N. | R. 105 W. | 32 | Lots, 1-6, 11-14 |
| 40.00 | T. 19 N. | R. 106 W. | 34 | SW¼SE¼ |
| 627.28 | T. 19 N. | R. 107 W. | 30 | Lots 5-8, E½, E½W½ |
| 640.00 | T. 19 N. | R. 107 W. | 32 | All |
| 80.00 | T. 19 N. | R. 107 W. | 34 | N½NE¼NE¼, N½NE¼NW¼, W½NW¼SW¼, E½NE¼SE¼. |
| 154.54 | T. 19 N. | R. 108 W. | 6 | Lots 8-9, S1/2NE1/4 |
| 640.00 | T. 19 N. | R. 108 W. | 32 | All |
| 640.00 | T. 20 N. | R. 101 W. | 2 | All |
| 458.32 | T. 20 N. | R. 101 W. | 4 | All |
| 640.00 | T. 20 N. | R. 101 W. | 10 | All |
| 2.50 | T. 20 N. | R. 101 W. | 28 | SE¼SE¼SE¼NE¼ |
| 29.73 | T. 20 N. | R. 102 W. | 6 | Lot 7 |
| 80.00 | T. 20 N. | R. 102 W. | 34 | SE¼SW¼, SW¼SE¼ |
| 320.00 | T. 20 N. | R. 105 W. | 20 | E½ |
| 320.00 | T. 20 N. | R. 105 W. | 32 | E½ |
| 341.54 | T. 20 N. | R. 108 W. | 6 | All |
| 640.00 | T. 20 N. | R. 108 W. | 8 | All |
| 619.64 | T. 20 N. | R. 108 W. | 18 | All |
| 640.00 | T. 20 N. | R. 108 W. | 20 | All |

| Acres | Township | Range | Section | Description |
|---|---|---|---|---|
| 316.90 | T. 20 N. | R. 109 W. | 2 | All |
| 640.00 | T. 20 N. | R. 109 W. | 10 | All |
| 534.84 | T. 20 N. | R. 109 W. | 12 | All |
| 640.00 | T. 20 N. | R. 109 W. | 14 | All |
| 542.98 | T. 20 N. | R. 109 W. | 24 | All |
| 535.28 | T. 20 N. | R. 110 W. | 6 | Lots 1-7, S½NE¼, SE¼NW¼, W½SW¼, SE¼ |
| 200.00 | T. 21 N. | R. 101 W. | 22 | N½NE¼, N½NW¼, SE¼NE¼ |
| 480.00 | T. 21 N. | R. 101 W. | 24 | All except SW¼ |
| 200.00 | T. 21 N. | R. 101 W. | 26 | NE¼NW¼, N½NE¼, W½SW¼ |
| 640.00 | T. 21 N. | R. 101 W. | 28 | All |
| 360.00 | T. 21 N. | R. 101 W. | 34 | N½, SE¼SE¼ |
| 320 | T. 21 N. | R. 101 W. | 36 | E½NE¼, E½SE¼, SW¼SE¼, S½SW¼, S½NW¼SW¼, S½NE¼SW¼, SW¼NW¼SW¼ |
| 636.78 | T. 21 N. | R. 102 W. | 34 | All |
| 640 | T. 21 N. | R. 108 W. | 22 | All |
| 640 | T. 21 N. | R. 108 W. | 26 | All |
| 640 | T. 21 N. | R. 108 W. | 28 | All |
| 320 | T. 21 N. | R. 108 W. | 32 | E½ |
| 640 | T. 21 N. | R. 108 W. | 34 | All |
| 559.76 | T. 24 N. | R. 99 W | 8 | Lots 1-5, E½NE, W½NW¼, NE¼SE¼, W½SE¼, SW¼ |
| 626.11 | T. 24 N. | R. 99 W | 9 | Lots 1-4, NE¼, NW¼, N½SE¼, N½SW¼ |
| 86.61 | T. 25 N. | R. 106 W. | 27 | N½NE¼, SW¼ NE¼ |
| 640.00 | T. 25 N. | R. 112 W. | 3 | All |
| 640.00 | T. 25 N. | R. 112 W. | 9 | All |
| 640.00 | T. 25 N. | R. 112 W. | 10 | All |
| 640.00 | T. 25 N. | R. 112 W. | 15 | All |
| 80.40 | T. 30 N. | R. 108 W. | 20 | Lots 2, 3 |
| **47,982.79** | **Total Acres for Disposal** | | | |
| **Acquisitions to be Pursued with Willing Parties** | | | | |
| **Approximate Acres** | -- | | | |
| 320.00 | Sulphur Springs Register | | | |
| 40.00 | Dry Sandy Stage Station | | | |
| 40.00 | LaClede Stage Station (formerly known as Fort LaClede) | | | |
| 40.00 | Big Pond Stage Station | | | |
| 5.00 | Point of Rocks Stage Station | | | |
| 840.00 | Additional land along perennial water and wetlands to enhance riparian area management | | | |
| 1,280 | Land within the ½ mile corridor or between river segments on the Big Sandy River | | | |
| 4,800 | Land within the ½ mile corridor or between river segments on the Sweetwater River | | | |
| 1,920 | State inholdings in the Buffalo Hump WSA and Sand Dunes WSA | | | |
| 1,920 | Land on Pine Butte to manage the candidate plant species *Descurainia torulosa* | | | |

# APPENDIX L—WILD AND SCENIC RIVER ELIGIBILITY CRITERIA

## L.1 INTRODUCTION

The following tables display the identification and classification of Bureau of Land Management (BLM)-administered public lands within the Rock Springs Resource Management Plan (RMP) planning area determined to meet the wild and scenic rivers eligibility criteria. Table L-16 provides a summary of the suitability reviews for all stream and river segments considered for wild and scenic river eligibility.

## L.2 LITTLE RED CREEK (PART OF RED CREEK UNIT)

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include scenic. The red eroded geologic features are remarkable scenic badlands which are unusual in this area. The watershed is relatively untouched and pristine.

**Table L-1. Little Red Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 103 W., T. 12 N., Section 18, from border of state land northwest to private land border. | Low riparian; two 2-tracks in waterway corridor; one 2-track crosses creek. | Scenic | 0.5 | 2.0 |
| 2 | R. 104 W., T. 12 N., Section 12, from border of private land north to border of private land in Section 1. | Low riparian; road parallels entire east bank of creek through BLM-administered parcel and crosses creek; seismic line parallels west bank and crosses creek; 1/4 mile is part of public water reserve. | Recreational | 1.0 | 0.2 |
| 3 | R. 104 W., T. 12 N., Section 1, from border of private land northwest to border of private land, R. 104 W., T. 13 N., Section 35. | Low riparian; adjacent private lands within waterway corridor; road and two 2-tracks in corridor parallel both banks. | Recreational | 0.7 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **4.4** |
| **Total Miles Across BLM Lands** | | | | **2.2** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **50%** | -- | -- |

*BLM-Administered Public Land

## L.3 JUNE CREEK (PART OF RED CREEK UNIT)

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic. The red eroded geologic features are remarkable scenic badlands which are unusual in this area. The watershed is relatively untouched and pristine.

**Table L-2. June Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 104 W., T. 12 N., Section 9, from border of state land north to junction with Red Creek, R. 104 W., T. 13 N., Section 34. | Low-moderate riparian; 2-track parallels entire west bank of creek; four 2-track crossings of creek. | Recreational | 2.6 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **2.6** |
| **Total Miles Across BLM Lands** | | | | **2.6** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **100%** | -- | -- |

*BLM-Administered Public Land

# L.4 BEEF STEER CREEK (PART OF RED CREEK UNIT)

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic. The red eroded geologic features are remarkable scenic badlands which are unusual in this area. The watershed is relatively untouched and pristine.

**Table L-3. Beef Steer Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 105 W., T. 13 N., Section 12, from headwaters southeast to junction with Red Creek, R. 104 W., T. 13 N., Section 13. | Low-moderate riparian; three seismic crossings; four 2-track access points on west side of creek. | Scenic | 4.0 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **4.0** |
| **Total Miles Across BLM Lands** | | | | **4.0** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **100%** | -- | -- |

*BLM-Administered Public Land

# L.5 LITTLE RED CREEK (PART OF RED CREEK UNIT)

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include scenic. The red eroded geologic features are remarkable scenic badlands which are unusual in this area. The watershed is relatively untouched and pristine.

**Table L-4. Little Red Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 103 W., T. 12 N., Section 4, from headwaters spring north to border of state land, R. 103 W., T. 13 N., Section 34. | Adjacent state lands within waterway corridor. Low riparian. Heavily timbered in corridor with stock trails cut to creek. Beaver pond stocked with Colorado River cutthroat trout. 2-track in corridor on ridgetop above creek. | Recreational | 0.8 | 0.3 |
| 2 | R. 103 W., T. 13 N., Section 34, from border of state land northwest to border of state land in Section 33. | Low-moderate riparian. Heavily timbered in corridor. Series of dry historic beaver ponds. Two-track in corridor on ridgetop above creek. | Recreational | 0.2 | 3.0 |
| 3 | R. 104 W., T. 13 N., Section 36, from border of state land west to border of state land. | Low-moderate riparian; 2-track parallels south bank of creek. | Recreational | 0.25 | 0.4 |
| 4 | R. 104 W., T. 13 N., Section 35, from border of private land northwest to border of private land, Section 34. | Adjacent low riparian private lands within waterway corridor; 2-track parallels creek on north 0.2 mile. | Scenic | 0.3 | 0.5 |
| 5 | R. 105 W., T. 12 N., Section 1, from border of private land west to border of state land, Section 31. | Low riparian; two 2-track crossings, two 2-tracks parallel south bank of creek along 20% of distance through BLM-administered parcel; one seismic crossing. | Recreational | 3.5 | 0.8 |
| 6 | R. 105 W., T. 12 N., Section 1, from border of state land southwest to border of private land Section 15. | Low riparian, no crossings; eight 2-track access points on both sides of creek through BLM-administered parcel. | Scenic | 2.6 | 1.0 |
| 7 | R. 105 W., T. 12 N., Section 22, from border of private land south to Wyoming-Utah state line and private land border. | Low riparian; road crosses creek and parallels 50% of creek through BLM-administered parcel, ranch ¾ mile SE of lower end of BLM-administered parcel. | Recreational | 0.6 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **14.25** |
| **Total Miles Across BLM Lands** | | | | **8.25** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **58%** | -- | -- |

*BLM-Administered Public Land

# L.6 CURRANT CREEK (PART OF CURRANT CREEK UNIT)

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include fisheries. There are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.

**Table L-5. Currant Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 106 W., T. 13 N., Section 1, from border of state land north to border of state land, R. 106 W., T. 14 N., Section 36. | Moderate riparian; no roads in waterway corridor through BLM-administered land; nearest access is 2-track parallel to creek ½ mile west on bench. | Wild | 1.2 | 0.6 |
| 2 | R. 106 W., T. 14 N., Section 36, from border of state land northwest to border of state land in Section 25. | Moderate riparian; no roads in waterway corridor through BLM-administered land; nearest access is 2-track parallel to creek ½ mile west on bench. | Wild | 0.5 | 0.8 |
| 3 | R. 106 W., T. 14 N., Section 25, from border of state land northwest to border of state land, Section 24. | Moderate riparian; one 2-track parallels east bank of creek in lower end of BLM-administered parcel; public water reserve covers 80% of creek through BLM-administered land; adjacent state lands within waterway corridor. | Scenic | 0.8 | 1.5 |
| 4 | R. 106 W., T. 14 N., Section 11, from border of state land northwest to border of private land, Section 10. | Moderate to heavy riparian; 2-track parallels 1 ½ miles of creek on north side; ¼ mile of creek through BLM-administered land covered by public water reserve. | Scenic | 2.0 | 1.25 |
| 5 | R. 106 W., T. 14 N., Section 5, from border of state land west to border of private land, Section 31. | Moderate to heavy riparian; entire creek through BLM-administered land is covered by public water reserve; one two 2-track parallels entire distance through BLM-administered land and crosses once; another 2-track follows opposite side of creek along 50% of distance through BLM-administered land. | Scenic | 0.5 | 2.0 |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 6 | R. 107 W., T. 14 N., Section 1, from border of private land northwest to border of private land. | Heavy riparian; 2-track parallels both sides creek; adjacent private lands within waterway corridor at each end (up and downstream) of BLM-administered parcel; ranch approximately ½ mile downstream from BLM-administered parcel. | Scenic | 0.5 | 4.5 |
| 7 | R. 107 W., T. 15 N., Section 30, from border of private land west to private land border. | Low-moderate riparian; road parallels north bank of creek entire distance through BLM-administered parcel; one 2-track access to creek. | Recreational | 0.6 | 0.2 |
| 8 | R. 107 W., T. 15 N., Section 30, from border of private land west to border of Flaming Gorge NRA. | Low-moderate riparian; road and 2-track parallel entire distance of creek through BLM-administered parcel on north side. | Recreational | 0.2 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **17.15** |
| **Total Miles Across BLM Lands** | | | | **6.3** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **37%** | -- | |

*BLM-Administered Public Land

# L.7 DRIPPING SPRINGS FORK, CURRANT CREEK (PART OF CURRANT CREEK UNIT)

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries. There are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.

**Table L-6. Dripping Springs Fork, Currant Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 105 W., T. 13 N., Section 7, from headwaters north to border of state land, R. 106 W., T. 14 N., Section 36. | Heavy riparian; one powerline crossing; 2-track parallels upstream half (southern) of creek; one-mile of creek across BLM-administered land is covered by public water reserve; adjacent state lands within waterway corridor. | Scenic | 2.0 | End of waterway segment reviewed. |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **2.0** |
| **Total Miles Across BLM Lands** | | | | **2.0** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **100%** | -- | -- |

*BLM-Administered Public Land

# L.8 EAST FORK CURRANT CREEK (PART OF CURRANT CREEK UNIT)

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries. There are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.

**Table L-7. East Fork Currant Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 105 W., T. 13 N., Section 7, from headwaters north to junction with Currant Creek, R. 106 W., T. 13 N., Section 1. | Moderate-heavy riparian; one powerline crossing; one 2-track parallels west bank of creek. | Scenic | 1.0 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **1.0** |
| **Total Miles Across BLM Lands** | | | | **1.0** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **100%** | -- | -- |

*BLM-Administered Public Land

# L.9 MIDDLE FORK CURRANT CREEK (PART OF CURRANT CREEK UNIT)

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries. There are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.

**Table L-8. Middle Fork Currant Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 105 W., T. 13 N., Section 19, northwest to border of state land, R. 106 W., T. 13 N., Section 12. | Moderate-heavy riparian; one powerline crossing; one 2-track parallels lower 50% in the downstream portion of the west bank of creek. | Scenic | 2.0 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **2.0** |
| **Total Miles Across BLM Lands** | | | | **2.0** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **100%** | -- | -- |

*BLM-Administered Public Land

# L.10 WEST FORK CURRANT CREEK (PART OF CURRANT CREEK UNIT)

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries. There are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.

**Table L-9. West Fork Currant Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 106 W., T. 13 N., Section 14, from border of state land north to border of state land. | Low riparian; one 2-track parallels west bank of creek. | Recreational | 0.25 | 0.3 |
| 2 | R. 106 W., T. 13 N., Section 11, from border of state land north to border of state land. | Low riparian; no roads within corridor through the BLM-administered parcel; nearest access road ½ mile west parallels creek on ridge. | Wild | 0.2 | 0.25 |
| 3 | R. 106 W., T. 13 N., Section 12, from border of state land north to border of state land. | Low riparian; one 2-track access at lower end of BLM-administered parcel. | Recreational | 0.3 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **1.3** |
| **Total Miles Across BLM Lands** | | | | **0.75** | -- |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **58%** | -- | -- |

*BLM-Administered Public Land

## L.11 PACIFIC CREEK

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include historic. The Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails parallel much of Pacific Creek. There were many pioneer camping spots along the creek. A Pony Express station was located immediately beside Pacific Springs.

**Table L-10. Pacific Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 101 W., T. 27 N., Section 5, from headwaters north to border of private land, R. 102 W., T. 27 N., Section 1. | Low riparian; road/2-track along entire length and right next to creek; historic trail within waterway corridor. | Recreational | 3.5 | 2.0 |
| 2 | R. 102 W., T. 27 N., Section 11, from border of private land southwest to border of private land in Section 21. | Low-moderate riparian; three 2-track crossings; dam/structure in channel, 2-tracks on both sides of creek upstream half (northeast portion) and one on downstream half; other 2-tracks within waterway corridor; historic trail within waterway corridor. | Recreational | 4.0 | 1.0 |
| 3 | R. 102 W., T. 27 N., Section 29, from border of private land southwest to border of private land. | Moderate-heavy riparian; two 2-tracks within waterway corridor parallel north bank of creek. | Scenic | 0.5 | 0.8 |
| 4 | R. 102 W., T. 27 N., Section 31, from border of private land southwest to border of private land. | Low riparian; road parallels north bank of creek within waterway corridor. | Scenic | 0.2 | 0.25 |
| 5 | R. 103 W., T. 26 N., Section 1, from border of state land southwest to border of state land. | Low riparian; two seismic crossings of creek; adjacent state lands within waterway corridor. | Scenic | 0.2 | 0.25 |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 6 | R. 103 W., T. 26 N., Section 2, from border of state land southwest to border of state land. | Low riparian; old railroad grade access ½ mile north of creek; no roads within corridor; adjacent state lands within waterway corridor. | Wild | 0.3 | 0.6 |
| 7 | R. 103 W., T. 26 N., Section 2, from border of state land southwest to border of state land. | Low riparian; railroad grade within waterway corridor; adjacent state lands within waterway corridor. | Scenic | 0.1 | 0.2 |
| 8 | R. 103 W., T. 26 N., Section 2, from border of state land southwest to border of state land. | Low riparian; one seismic crossing; railroad grade within waterway corridor; adjacent state lands within waterway corridor. | Recreational | 0.1 | 1.0 |
| 9 | R. 103 W., T. 26 N., Section 10, from border of state land south to border of state land. | Low riparian; railroad grade crosses creek; adjacent state lands within waterway corridor. | Recreational | 0.1 | 0.1 |
| 10 | R. 103 W., T. 26 N., Section 10, from border of state land southwest to border of state land. | Low riparian; railroad grade within waterway corridor; 2-track crosses creek; one other 2-track to creek; adjacent state lands within waterway corridor. | Recreational | 0.2 | 2.0 |
| 11 | R. 103 W., T. 26 N., Section 17, from border of state land southwest to border of state land. | Low riparian; railroad grade within waterway corridor; two 2-tracks within waterway corridor and one 2-track along creek through BLM-administrated parcel; adjacent state lands within waterway corridor. | Recreational | 0.1 | 1.0 |
| 12 | R. 103 W., T. 26 N., Section 19, from border of state land southwest to border of state land. | Low riparian; one 2-track within waterway corridor. | Scenic | 0.1 | 0.3 |
| 13 | R. 103 W., T. 26 N., Section 19, from border of state land southwest to border of state land. | Low riparian; one 2-track within waterway corridor. | Recreational | 0.3 | 0.2 |
| 14 | R. 103 W., T. 26 N., Section 24, from border of state land southwest to border of state land. | Low riparian; one 2-track parallels north bank of creek. | Recreational | 0.1 | 1.5 |
| 15 | R. 103 W. T. 26 N., Section 26, from border of state land southwest to border of state land. | Low riparian; railroad grade within waterway corridor; three 2-tracks in corridor (one crosses creek). | Recreational | 0.2 | 0.1 |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 16 | R. 103 W., T. 26 N., Section 26, from border of state land southwest to border Bureau of Reclamation lands, R. 105 W., T. 25 N., Section 23. | Low riparian; railroad grade within waterway corridor entire length of creek through BLM-administered parcel; railroad crosses one time, 2-tracks parallel entire creek distance through BLM-administered parcel; two road and three 2-track crossings of the creek. | Recreational | 12.0 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **34.05** |
| **Total Miles Across BLM Lands** | | | | **22.0** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **65%** | -- | -- |

*BLM-Administered Public Land

## L.12 NORTH FORK OF BEAR CREEK

Outstandingly remarkable values of BLM-administered lands in the waterway review segment include geologic, scenic, recreation, and scientific. The creek flows through the Honeycomb Buttes Wilderness Study Area. The geology of the area is rare and the contrasting colors are scenic. Popular for recreationists and good opportunities for studying high plains desert ecology. The waterway review segment is intermittent.

**Table L-11. North Fork of Bear Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 100 W., T. 27 N., Section 1, from headwaters southeast to junction with Bear Creek, R. 98 W., T. 25 N., Section 5. | Very low riparian; one faint 2-track within waterway corridor for approximately one-mile at upstream end, and one 2-track road crosses at downstream end of BLM-administered parcel. | Wild | 12.0 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **12.0** |
| **Total Miles Across BLM Lands** | | | | **12.0** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **100%** | -- | -- |

*BLM-Administered Public Land

# L.13 CANYON CREEK

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include scenic and historic. The creek has steep sloped bordering the toe slopes of Pine Mountain giving scenic contrasting views of geology and vegetation. The creek is along the route used by Western outlaws to reach hideouts in Brown's Park, in Colorado. The creek is also adjacent to the diamond fields of the Great Diamond "Hoax" at the base of Diamond Peak, just south of the Wyoming state line.

**Table L-12. Canyon Creek Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 103 W., T. 12 N., Section 22, from headwaters northeast to border of private land, Section 24. | Low-moderate riparian; road and 2-track parallel 50% of creek distance through BLM-administered parcel; three seismic crossings; adjacent state lands within corridor at upstream end of BLM-administered parcel; adjacent private lands within corridor at downstream end of BLM-administered parcel | Recreational | 1.3 | 0.7 |
| 2 | R. 102 W., T. 12 N., Section 18, from border of private land northeast to border of private land. | Low riparian; two 2-tracks to creek; road parallels south side of creek (within ¼ mile) through BLM-administered parcel. | Recreational | 0.25 | 0.5 |
| 3 | R. 102 W., T. 12 N., Section 18, from border of private land northeast to border of state land. | Low riparian; 2-track parallels creek on south side. | Recreational | 0.2 | 1.0 |
| 4 | R. 102 W., T. 12 N., Section 17, from border of state land southeast to border of private land, Section 16 (SE corner). | Low riparian; road parallels north side of creek through BLM-administered parcel; one old irrigation diversion; two roads and three seismic crossings. | Recreational | 1.1 | 1.0 |
| 5 | R. 102 W., T. 12 N., Section 23, from border of private land east to border of private land. | Low-moderate riparian; road parallels north side of creek through BLM-administered parcel; one new irrigation diversion. | Recreational | 1.1 | 0.7 |
| 6 | R. 102 W., T. 12 N., Section 13, from border of private land east to border of private land, R. 101 W., T. 12 N., Section 18. | Moderate riparian; road crosses creek and parallels north side of creek through BLM-administered parcel. | Recreational | 0.6 | 1.6 |
| 7 | R. 101 W., T. 12 N., Section 20, from border of state land southeast to border of private land. | Moderate riparian; bench road parallels north side of creek (1/8 mile from creek) through BLM-administered parcel. | Recreational | 0.1 | 0.6 |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 8 | R. 101 W., T. 12 N., Section 21 from border of private land southeast to Wyoming-Colorado state line. | Moderate-heavy riparian; no roads in waterway corridor; nearest access 2-track to creek at upstream end of BLM-administered parcel. | Wild | 0.4 | End of waterway segment reviewed |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **11.15** |
| **Total Miles Across BLM Lands** | | | | **5.05** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **45%** | -- | -- |

*BLM-Administered Public Land

## L.14 SWEETWATER RIVER

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include scenic, historic, and recreational. The river played a major role in the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails. It was crossed nine times by the trails. The rugged Sweetwater Canyon is only accessible by foot. Campsites along the river are very popular recreation areas.

**Table L-13. Sweetwater River Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 102 W., T. 30 N., Section 19, from Bridger Forest border south to beginning of Sweetwater Canyon, Section 19. | Heavy riparian; one road leading to Guard Station Campground and network of roads in the campground. Recreational usage. | Recreational | 0.6 | 0 |
| 2 | R. 102 W., T. 30 N., Section 19, from beginning of Sweetwater Canyon to Sweetwater Campground. | No access to canyon other than by foot; three 2-tracks to rim of canyon from west; road access to Sweetwater Campground at southern end of BLM-administered parcel. | Wild | 3.0 | 0 |
| 3 | R. 102 W., T. 29 N., Section 5, from Sweetwater Campground southeast to border of state lands, Section 16. | Heavy riparian; road access into BLM-administered parcel and road parallels 0.1 mile of the river within this parcel. | Recreational | 2.8 | 3.0 |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 4 | R. 102 W., T. 29 N., Section 27, from border of private land southeast to border of state land. | Heavy riparian; nearest access 2-track ½ mile south of BLM-administered parcel; no roads in corridor. | Wild | 0.6 | 0.5 |
| 5 | R. 102 W., T. 29 N., Section 34, from border of state land south to border of private land. | Heavy riparian; 2-track parallels west bank; one 2-track access from east; two 2-tracks access from west. | Scenic | 0.5 | 0.25 |
| 6 | R. 102 W., T. 28 N., Section 4, from border of state land south to border of private land. | Heavy riparian; no roads in corridor; nearest access is 2-track ¼ mile above north end of BLM-administered parcel. | Wild | 1.0 | 0.2 |
| 7 | R. 102 W., T. 28 N., Section 10, from border of private land southeast to border of private land Section 11. | Heavy riparian; no roads in corridor; nearest access is parallel road ¾ mile east of river. | Wild | 1.2 | 3.2 |
| 8 | R. 101 W., T. 28 N., Section 19, from border of private land southeast to border of private land. | Heavy riparian; two 2-tracks in corridor, adjacent private lands within corridor. | Scenic | 0.6 | 8.5 |
| 9 | R. 100 W., T. 28 N., Section 29, from border of state land northeast to border of private land Section 27. | Moderate-heavy riparian; two 2-tracks in corridor each side of river. | Scenic | 2.5 | 0.3 |
| 10 | R. 100 W., T. 28 N., Section 29, from border of state land northeast to border of private land Section 26. | Heavy riparian; diversion and irrigation ditch along north bank of river; two 2-tracks in corridor; adjacent private lands within corridor. | Recreational | 0.3 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **29.05** |
| **Total Miles Across BLM Lands** | | | | **13.1** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **45%** | -- | -- |

*BLM-Administered Public Land

## L.15 BIG SANDY RIVER

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include historic. The river played a major role in the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails as a major campsite. Jedediah Smith's party which discovered South Pass traveling east to west, crossed the upper reaches of the river.

**Table L-14. Big Sandy River Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 100 W., T. 27 N., Section 1, from Section 5. | Heavy riparian; one faint 2-track to river at north end of BLM-administered parcel. | Wild | 1.5 | 2.0 |
| There are a total of 36 BLM-administered land parcels along the 74.6-mile review segment of the Big Sandy River. The 36 BLM-administered parcels represent a total of 16.15 miles of the review segment. Only the one parcel, involving 1.5 miles of the waterway, was determined to meet the WSR eligibility criteria. | | | | -- | -- |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **74.6** |
| **Total Miles Across BLM Lands** | | | | **16.15** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **22%** | -- | -- |

*BLM-Administered Public Land

## L.16 GREEN RIVER

Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include wildlife, historic, and recreational. The river played a major role in the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails as it was one of the most dangerous crossings along the trails. Wildlife populations along the Green River are extensive and varied. The river is popular for floating, fishing, camping, and retracing historic expeditions.

**Table L-15. Green River Segment Review**

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 1 | R. 112 W., T. 28 N., Section 24, from border of private land southeast and west (loop) to border of private land. | Heavy riparian; cottonwood bottom; 2-track access on west bank of river. | Scenic | 0.25 | 1.2 |
| 2 | R. 112 W., T. 28 N., Section 24, from border of private land southeast to border of private land. | Heavy riparian; cottonwood bottom; two old channels and sandbars; 2-track parallels east side; one 2-track to bottom adjacent state lands within corridor. | Recreational | 0.4 | 6.0 |

| Parcel Number* | Waterway Review Segment and Location of Parcel* | Notes/Description/Outstandingly Remarkable Values of Parcel* | Tentative Classification of Waterway Across Parcel* | Length of Waterway Across Parcel* (miles) | Distance to Next BLM Land Parcel (miles) |
|---|---|---|---|---|---|
| 3 | R. 112 W., T. 27 N., Section 20, from border of private land southwest to border of private land, Section 29. | Moderate riparian; U.S. 179 within corridor west of BLM-administered parcel; one parallel 2-track between highway and river. | Recreational | 0.4 | 0.25 |
| 4 | R. 112 W., T. 27 N., Section 31, from border of private land south to border of private land. | Moderate riparian; two 2-tracks, one on each side of river through BLM-administered parcel. | Recreational | 0.25 | 1.2 |
| 5 | R. 112 W., T. 27 N., Section 31, from border of private land south to border of private land. | Moderate riparian; U.S. 189 within corridor; adjacent private lands within corridor; bridge crosses river; BLM-administered parcel approximately ½ mile north of LaBarge. | Recreational | 0.3 | 6.0 |
| 6 | R. 112 W., T. 26 N., Section 33, from border of private land southwest to border of private land and Bureau of Reclamation land forks. | Moderate-heavy riparian; river splits around island; adjacent private lands within corridor; roads and 2-tracks parallel both banks. | Recreational | 0.25 | 56.0 |
| 7 | R. 112 W., T. 18 N., Section 6, from border of private land southeast to border of private land. | Moderate riparian; adjacent private lands within corridor; I-80 crosses river approximately 100 yards below BLM-administered parcel; 2-track access to river south side. | Recreational | 0.1 | 2.0 |
| 8 | R. 107 W., T. 18 N., Section 8, from border of private land southeast to border of private land. | Low-moderate riparian; adjacent private lands, Union Pacific railroad, and Rio Vista subdivision within corridor. | Recreational | 0.5 | 0.9 |
| 9 | R. 107 W., T. 12 N., Section 16, from border of private land southeast to border of private land. | Low riparian; 1-80 within corridor, pipeline or powerline crosses river; 2-track to river both sides. | Recreational | 0.4 | End of waterway segment reviewed. |
| **Total Length of Waterway Segment Reviewed (miles)** | | | | | **71.0** |
| **Total Miles Across BLM Lands** | | | | **2.85** | -- |
| **Percent BLM Jurisdiction of Waterway Segment Reviewed** | | | **4%** | -- | -- |

*BLM-Administered Public Land

# L.17 RESULTS OF THE WILD AND SCENIC RIVERS SUITABILITY REVIEW OF BUREAU OF LAND MANAGEMENT-ADMINISTERED PUBLIC LANDS ALONG WATERWAYS IN THE ROCK SPRINGS RESOURCE MANAGEMENT PLAN PLANNING AREA

## L.17.1 Red Creek (includes Little Red Creek, June Creek, and Beef Steer Creek)

It was determined that the 12 BLM-administered public land parcels along the Red Creek Unit review segments (including Little Red Creek, June Creek, and Beef Steer Creek) do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) the potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that the BLM has no jurisdiction or control over, (2) the inability of the BLM to manage the BLM-administered public lands involved in the context of a wild and scenic river because of the interspersed parcels of private and state land, and (3) the BLM-administered public lands do not constitute a worthy addition to the National Wild and Scenic River System. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.2 Currant Creek (includes Dripping Springs, East, Middle, and West Forks)

It was determined that the 14 BLM-administered public land parcels along the Currant Creek Unit review segments (including Dripping Springs, East, Middle, and West Forks) do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) the potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that the BLM has no jurisdiction or control over, and (2) the inability of the BLM to manage the BLM-administered public lands involved in the context of a wild and scenic river because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.3 Pacific Creek

It was determined that the 16 BLM-administered public land parcels along the Pacific Creek review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) the potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that the BLM has no jurisdiction or control over, and (2) the inability of the BLM to manage the BLM-administered public lands involved in the context of a wild and scenic river because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.4 North Fork of Bear Creek

It was determined that the BLM-administered public land parcel along the North Fork of Bear Creek review segment does not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) the BLM-administered lands involved do not constitute a worthy addition to the National Wild and Scenic River System, and (2) the lack of public. state, local, tribal. or federal interest in designation or non-designation of any part or all of the creek. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.5 Canyon Creek

It was determined that the eight BLM-administered public land parcels along the Canyon Creek review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (l) the potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that the BLM has no jurisdiction or control over, (2) potential use conflicts with Canyon Creek which could occur if it is included in the National Wild and Scenic River System, and (3) the inability of the BLM to manage the BLM-administered public lands involved in the context of a wild and scenic river because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.6 Sweetwater River

It was determined that seven of the BLM-administered public land parcels along the upstream portion of the Sweetwater River review segment meet the wild and scenic river suitability factors and should be managed to maintain or enhance their outstandingly remarkable values for any possible future consideration for inclusion in the wild and scenic river system. The suitable determination is based on the uniqueness of the diverse BLM-administered land resources and their regional and national significance, making them worthy of any future consideration for addition to the wild and scenic river system.

The outstanding scenic, historic, and recreational values associated with the BLM-administered lands involved make this a uniquely diverse waterway segment in the region. Within this portion of the review segment, the Sweetwater Canyon and recreational opportunities at the Sweetwater campgrounds are of particularly high value.

Making up over 70% of the lands along this portion of the review segment, the BLM-administered public lands are manageable by the BLM as a wild and scenic river under the provisions of the Wild and Scenic River Act. Other factors that complement and enhance this manageability include (1) the existing public access to existing recreational areas in the review segment, and (2) there are no anticipated conflicts with the management objectives on the intermingled state and private lands within the review segment and the intermingled private lands are not large or extensive parcels as with ownership patterns along other waterways in the RMP planning area.

It was determined that the remaining three BLM-administered public land parcels within the downstream portion of the Sweetwater River review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination for these three parcels is based on (1) the potential conflicts with management and activities

conducted on the adjacent (and up or downstream) state and private lands that the BLM has no jurisdiction or control over. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.7 Big Sandy River

It was determined that the one BLM-administered public land parcel along the Big Sandy River review segment does not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on the inability of the BLM to manage the small amount of BLM-administered public lands involved in the context of a wild and scenic river. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

## L.17.8 Green River

It was determined that the nine BLM-administered public land parcels along the Green River review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic over system. The non-suitable determination is based on (1) the potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that the BLM has no jurisdiction or control over, and (2) the inability of the BLM to manage the BLM-administered public lands involved in the context of a wild and scenic river because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation. The BLM administers only a minute amount of land (4%) along the 71 miles of the Green River flowing through the Green River Resource Area. However, other Department of the Interior agencies (Bureau of Reclamation [BOR] and U.S. Fish and Wildlife Service [USFWS]) manage a large part of the remaining lands along the river. In addition, there was quite a bit of public interest for designation of the Green River as a Recreational River. The BLM would participate in any future joint study efforts or wild and scenic river reviews along the Green River.

**Table L-16. Summary of Wild and Scenic River Suitability Review**

| Waterway Reviewed | Determination | Justification |
|---|---|---|
| Red Creek Unit (all BLM land parcels along Red Creek and all other tributaries in the unit)[2] | BLM Lands Not Suitable | Not a worthy addition to the Wild and Scenic River System; land ownership conflicts; manageability. |
| Currant Creek Unit (all BLM land parcels along Currant Creek and all other tributaries in the unit)[2] | BLM Lands Not Suitable | Land ownership conflicts; manageability. |
| Pacific Creek[2] | BLM Lands Not Suitable | Land ownership conflicts; manageability. |
| North Fork of Bear Creek[2] | BLM Lands Not Suitable | Not a worthy addition to the Wild and Scenic River System; lack of interest for designation. |
| Canyon Creek[2] | BLM Lands Not Suitable | Potential use conflicts; manageability. |
| Green River[1] | BLM Lands Not Suitable | Manageability; land ownership conflicts. |
| Sweetwater River (upstream portion of review segment)[2] | 7 BLM Land Parcels Suitable | Scenic, historic, and recreational values, unique land and resource diversity. |

| Waterway Reviewed | Determination | Justification |
|---|---|---|
| Sweetwater River (downstream portion of review segment)[2] | 3 BLM Land Parcels Not Suitable | Land ownership conflicts. |
| Big Sandy River[2] | BLM Lands Not Suitable | Manageability. |

[1]Green River - The portion of the Green River administered by the BLM did not meet the suitability factors based upon the inability of the BLM to manage the BLM-administered lands in the context of a wild and scenic river because of the large and numerous separations of the few BLM administered parcels by interspersed private and state lands and by other federal lands administered by the BOR and USFWS. However, the BLM would participate in any future joint WSR reviews or studies that may be conducted on the Green River.
[2]The BLM would participate in any future study, or joint efforts, or wild and scenic river reviews (re-evaluation) along streams and waterways for potential WSR designation within the planning area.

# APPENDIX M—ASPEN MOUNTAIN COMMUNICATIONS SITE MANAGEMENT PLAN

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Department of the Interior
Bureau of Land Management

# ASPEN MOUNTAIN COMMUNICATIONS SITE MANAGEMENT PLAN

**Prepared by the Bureau of Land Management**
**Rock Springs Field Office, Wyoming**

**Approved by:** _____ 1 Sept. 2011
**Field Manager** **Date**

# ASPEN MOUNTAIN COMMUNICATIONS SITE MANAGEMENT PLAN

# I. INTRODUCTION

Demand for new communication sites continues to be active in the United States including carrier requests to locate cellular facilities on public lands in the western states. This demand is due to advances in communication technology, strong consumer interest, and a 1983 Federal Communication Commission (FCC) decree establishing wireless carrier coverage requirements.

Aspen Mountain is an established communication site with characteristics desired by wireless carriers, TV and radio stations, and other communication providers. The communication site overlooks a rural but growing population area of the city of Rock Springs to the north. Interstate Highway 80 runs in a generally west/east direction through the area about 12 miles north of Aspen Mountain. A number of State Highways and other secondary roads also run through the surrounding area.

This Communication Site Management Plan has been developed to document and evaluate the existing communication site and facilities located on Aspen Mountain. The plan also provides an outline for orderly future development of the site in conformance with the Rock Springs Field Office's (RSFO) current land use planning document, the Green River Resource Management Plan (RMP).

Current BLM program guidance for resource management planning specifies that every planning document shall contain determinations relevant to communication sites. The Green River RMP, Record of Decision signed August 8, 1997, does not discuss specific details needed for proper management of the communication site. Therefore, in order to supplement the land use planning document, this site management plan has been prepared to address specific issues encountered on Aspen Mountain.

Approved lessees or right-of-way (ROW) holders with facilities currently located on Aspen Mountain are shown in the Users' Table, Appendix B. Additional tenants or customers may be accommodated within the confines of existing authorized communication facilities as long as such additions are in compliance with the terms and conditions of authorized leases or ROW grants and with the supplemental direction contained in this site plan. Requests for new communication site facilities may be authorized at the discretion of BLM's Authorized Officer (AO) through the issuance of new Communications Use Leases, or in some cases, by the issuance of additional ROW grants.

This site plan will be incorporated into all future new leases issued for the Aspen Mountain Communication Site. This plan will also be included as a part of all existing leases and renewed leases or ROW grants as the terms of those authorizations allow. Provisions of the site plan are enforced through the terms and conditions of the ROW or lease authorization. Each lessee is expected to incorporate mandatory BLM lease and site plan requirements into any subsequent agreements with the lessee's tenants and customers. The lessee is also responsible for enforcement of said requirements involving the lessee's tenants and customers.

## A. Terms and Definitions

The terms used in this Communications Site Management Plan conform to the definitions listed in the April 22, 2005, Federal Register notice "Rights-of-Way, Principles and Procedures: Rights-of-Way under the Federal Land Policy and Management Act and the Mineral Leasing Act", with further clarification provided in Bureau of Land Management (BLM) Handbook 2860-1 and the United States Code of Federal Regulations (CFR) 43 CFR 2800. In the event of a conflict, between the plan and these sources, the Federal Register notice and the BLM Handbook will govern.

The words "lease" and "lessee" as used in this plan refer to the relationship between the BLM and the communications use lease lessee, or ROW holder. The words "customer" and "tenant" refer to the relationship between the lessee or holder and the occupants in the lessee's facilities.

LEASE OR ROW – A use authorization issued to a communication Facility Owner or Facility Manager allowing for the use of public land to construct and or operate a communications facility and, unless specifically prohibited, to sublease to occupants in that facility.

LESSEE, LEASE HOLDER, OR ROW HOLDER – A Facility Owner or Facility Manager.

CUSTOMER – A facility occupant who is paying a facility manager, facility owner, or tenant for using all or any part of the space in the facility, or for communication services, and is not selling communication services or broadcasting to others.

TENANT – A facility occupant who is paying a facility manager, facility owner, or other entity for occupying and using all or part of a facility. A tenant operates communication equipment in the facility for profit by broadcasting to others or selling communication services.

COMMUNICATIONS SITE – An area of BLM-managed public land designated through the land and resource management planning process as being used or is suitable for communications uses. A communications site may be limited to a single communications facility, but most often encompasses more than one. Each site is identified by name; usually a local prominent landmark, such as Aspen Mountain Communications Site.

FACILITY – The building, tower, and related incidental structures or improvements authorized under the terms of the grant or lease.

FACILITY MANAGER – The holder of a BLM communications use authorization who leases space for other communication users. A facility manager does not own or operate communications equipment in the facility for personal or commercial purposes.

FACILITY OWNER – Individuals, commercial entities, organizations, or agencies, that own a communications facility on Federal land; own and operate their own communications equipment; and hold a communications use authorization. Facility owners may or may not lease space in the facility to other communications users.

NON-BROADCAST – This category includes Commercial Mobile Radio Service, Facility Managers, Cellular Telephone, Private Mobile Radio Service (PMRS), Microwave, Local Exchange Network, and Passive Reflector.

BROADCAST – This category includes Television Broadcast, AM and FM Radio Broadcast, Cable Television, Broadcast Translator, Low Power Television, and Low Power FM Radio.

RIGHT-OF-WAY (ROW) – The public land authorized to be used or occupied pursuant to a ROW grant.

RIGHT-OF-WAY GRANT – A use authorization issued pursuant to Title V of the Federal Land Policy and Management Act of October 21, 1976 (43 U.S.C. 1701 *et seq.*) or issued on or before October 21, 1976, pursuant to then existing statutory authority, authorizing the use of a ROW over, upon, under or through public land for construction, operation, maintenance and termination of a project.

HOLDER – Any applicant who has received a ROW grant, lease or temporary use permit.

USERS – All ROW and lease holders, lessees, customers, and tenants that own or operate a facility or communication equipment at the communication site.

SENIOR USE – Any use whose implementation date is prior to the implementation date of the use in question.

RANALLY METRO AREA (RMA) – A series of nine population zone areas, the highest of which is greater than 5 million and the lowest being 25,000 or less. These zones are determined annually and published in the Ranally Metro Area Population Ranking, an independent publication from Rand McNally, and are used in rent determination under guidelines established in 43 CFR 2806.

## B. Purpose

This plan will be used by BLM officials administering communications uses at Aspen Mountain, existing lessees, holders, and applicants desiring a lease, grant, or an amendment to an existing lease or ROW grant. The plan will be kept updated by amending pages or sections of the plan rather than issuing a revised edition of the plan. When an administrative revision is necessary (such as the addition of a user), a letter will be sent to the holders from the RSFO enclosing a copy of revised pages or sections. The amendments will be consecutively numbered. Other proposed revisions to the plan will be circulated to holders for comment prior to implementation.

Overall management direction for the administration of communications sites is outlined in the CFR and the BLM Handbook and applicable BLM Instructional Memoranda. Specific direction for site management planning on designated communications sites is contained in BLM Handbook 2860-1. Primary regulations and policy pertaining to issuance of ROW authorizations by the BLM are found in Title 43 CFR Sections 2801- 2808 and BLM Handbook 2860-1.

This Site Management Plan provides applicable guidance and adds current policy and technical standards for better management of the Aspen Mountain Communications Site. This plan governs development and management of Aspen Mountain and will be modified in the future as needs and conditions warrant. Any future such uses must be designed, installed, operated, and maintained to be compatible and not interfere with the senior uses as defined in Section A above. This site-specific plan is administrative in nature and is Categorically Excluded from further review under the National Environmental Policy Act (NEPA) in accordance with 516.DM 2, Appendix 1, item 1.10, which states " – Policies, directives, regulations, and guidelines that are of an administrative, financial, legal, technical, or procedural in nature and whose environmental effects are too broad, speculative, or conjectural to lend themselves to meaningful analysis and will later be subject to the NEPA process, either collectively or case-by-case". Any additional development of Aspen Mountain will be addressed in a site-specific NEPA document.

## C. Site Description

The site is located approximately 12 miles south of Rock Springs, Wyoming and approximately 9.5 miles east of US Highway 191. It is on Aspen Mountain, a prominent landmark in the area. The area is managed by the RSFO. It is specifically located in the SE¼SE¼ of sec. 22, T. 17 N., R. 104 W., 6th Principal Meridian, Sweetwater County, Wyoming at approximately 41º 25' 50.7" North Latitude and 109º 07' 15.6" West Longitude. The elevation at the Aspen Mountain Communications Site is approximately 7,858 feet above mean sea level. A site map is provided as Appendix A.

## D. Area Served

This site does not serve an RMA. The largest population zone served is less than 25,000. This zone may be adjusted in the future as populations change. This information will be used for rental fee determination.

## E. Access

From US Highway 430, travel south on County Road 4-27 approximately 7.5 miles to Radio Telephone Road. Turn left (east) and travel approximately 2.2 miles to Aspen Mountain.

## F. Site History and Development

There are currently five communications facilities at Aspen Mountain. On July 8, 1975 the first communications facility was granted to the BLM under serial number WYW 52096.

Colorado Interstate Gas Co. was the second entity to construct a facility granted under authorization WYW 53936 on January 21, 1977 for their internal communications.

The Qwest Corporation was authorized to construct their facilities on September 15, 1988 to include microwave under ROW grant WYW107566.

The fourth entity issued a communication site ROW (WYW105090) was Ted Higgins on May 24, 1991. The ROW was assigned to Communications Technologies Inc, the current holder.

The last user issued a ROW (WYW167451) was to Sterling Communications in July 25, 2008. Previously, the Industrial Communications was the previous holder until their ROW was terminated on October 3, 2005.

A list of all authorized facilities as of the date of this plan can be found in Appendix B. Any modifications to existing facilities or proposals for new facilities must be approved by the RSFO according to the appropriate NEPA process and guidance described in this document.

The site currently appears to be relatively clean from interference, receiver sensitivity, and noise. If additional new uses deteriorate the receiving/transmitting operation of the existing uses, the new uses may be required to institute additional studies, equipment upgrades, frequency isolation, or physically separate from the existing uses. This may be particularly required if they are continuously transmitting in nature, or if there is an increase in transmitter power from communications uses on private land.

## G. Goals and Objectives of the Site Management Plan

1. Manage the Aspen Mountain site for low-power uses including two-way radio, microwave, cellular, cable television reception, in addition to high power uses such as radio broadcast. All uses must be

designed, operated and maintained so as not to physically or electronically interfere with the senior uses.

2. Manage communication equipment on the Aspen Mountain site to maintain the radio frequency radiation (RFR) to be within the Public Standard as defined by the FCC.

3. Systematically develop the site to maximize the number of compatible uses while ensuring safety and protection of resources. Development of new towers or buildings within each of the authorized owner's facilities will be authorized only after their respective tower or building space area is filled to near capacity.

4. Help fulfill the public need for adequate communications sites.

5. Protect the interests of holders, lessees, tenants and customers, by preserving a safe and electronically "clean" environment.

6. Encourage the efficient development and use of space and facilities within the designated site.

7. Achieve visual quality objectives by requiring design standards that are unobtrusive and utilizing earth tone colors and non-reflective surface material and stringent site maintenance requirements.

8. Describe the BLM's policy for road maintenance.

9. Develop new facilities only after the appropriate site-specific NEPA analysis and coordination with current lease or ROW holders and users.

10. Amend this Communications Site Management Plan as necessary in coordination with local, state and federal regulations and to be consistent with the management objectives of current and future RMPs. The BLM will provide authorization holders with proposed amendments to this plan and will allow a reasonable period of time for the holders to review and comment on the proposed changes.

# II. AUTHORITY AND DIRECTION

## A. Authority

The authority used by BLM to authorize communications uses on public land (administered by the BLM) is the Federal Land Policy and Management Act of 1976, 90 Stat. 2776 (43 U.S. C. 1761-1771) and is reflected in Title 43, CFR, Sections 2801- 2808 and various BLM Washington Office Information Bulletins and Instruction Memoranda.

BLM authority for communications site management planning is contained in BLM Handbook 2801- 1, Plan of Development. Direction on and policy for communication use authorizations is contained in BLM Manual Section 2860.

Authority for the issuance of authorizations and/or licenses for the transmission and reception of electronic radiation for communication purposes is granted by Congress and administered by the FCC and/or the National Telecommunication and Information Administration – Interagency Radio Advisory Committee (NTIA/IRAC).

## B. Relationship to Communications Site Leases/Right-Of-Way Grants

This site plan will be incorporated into all leases and ROW grants issued (now and/or in the future) for this communications site and must be used in conjunction with the granting authorization. **PROVISIONS OF THIS SITE PLAN ARE ENFORCED THROUGH THE GRANTING AUTHORIZATION (LEASE OR ROW GRANT).** Each lessee or holder is expected to include the requirements of the authorization and this site plan into any documents, which describe the business relationship between the lessee and their tenants and customers. The lessee or holder is responsible for enforcing those provisions.

# III. GENERAL RESPONSIBILITIES

## A. The Bureau of Land Management

The BLM retains the responsibility for issuing and amending authorizing instruments to Facility Owners and Facility Managers, only for the areas actually occupied by the authorized improvements. The issuance of an FCC license (authorization), or frequency assignment, does not authorize occupancy of public land. Granting occupancy and use of public land, administered by the BLM, rests exclusively with the BLM. This includes:

1. Approving any new facility(ies) at the site.

2. Approving amendments to existing facilities (i.e. additions to tower, building, support facilities), and approving assignments of leases and ROW grants to qualified buyers of facilities on the site.

3. Approving any modifications to existing facilities including the tower, antenna, equipment or building. Also, approving any changes to the existing FCC licenses, prior to the submission of an application to the FCC. Federal Radio are licensed through the NTIA.

4. Frequency Management. The BLM is not normally responsible for the resolution of conflicts when the licensees or agencies are operating within the limits of the FCC and NTIA/IRAC authorizations.

## B. Facility Owners and Facility Managers

Facility owners and facility managers (or their designated representatives) are responsible for:

1. Complying with their use authorization and all provisions of this site plan.

2. Ensuring that all new facilities, expansions, or improvements are consistent with the RSFO land use planning documents; any environmental document(s)/decisions for the site; and, this site plan.

3. Ensuring facilities/equipment not complying with Federal/State/local laws/regulations/ ordinances will be removed or modified within one year of the approval of this plan. Any modification needs pre-approval by the BLM.

4. Keeping all facilities within the established limits of their authorized area.

5. Providing the BLM with the name, address and phone number for a local contact person. The Facility Owner and Facility Manager and the contact person may be the same individual. The contact person will be available for emergencies and will have the authority to make decisions about construction issues, facility maintenance and all equipment within the facility.

6. Providing 30-day notice to all facility owners/facility managers at the site, as well as the BLM, of all new frequencies proposed for the site. A completed BLM technical data sheet or equivalent must be sent with the 30-day notice to allow for comment of potential interference. This notification requirement applies to new frequencies for facility owners/facility managers as well as their tenants and customers

7. Adhering to the lease/ROW grant as follows:

    a. Facility Owners and Facility Managers with Communications Use Leases are authorized to rent building/tower space to tenants and/or customers without prior written approval from the BLM.

    b. Tenants and/or customers may not construct their own equipment shelter (building, shelter, generator pad, cabinet, etc.) or antenna support structure (tower or mast). The facility owner must own all communication shelters and towers under their lease or grant. [If that is not possible, a separate SF-299 application, cost-recovery fees, analysis, and authorization are required. This may also result in the use being a tenant/customer of the original lease/ROW in addition to being a separate facility for billing purposes.]

    c. Tenants and/or customers using a facility covered by a Facility lease/ROW will not have separate BLM leases/ROWs to authorize their use except in situations where regulations or policy require them.

    d. Facility Owners and Facility Managers are responsible for complying with the terms and conditions of the facility lease/ROW. Facility Owners/Facility Managers are also responsible for ensuring that their tenants and customers are in compliance with the terms and conditions of the lease/ROW and applicable FCC or NTIA/IRAC license terms and conditions.

    e. The Facility Owner and Facility Manager may not place any unreasonable restrictions nor any restriction restraining competition or trade practices on tenants and/or customers, or potential tenants and/or customers.

8. Ensuring that all communications equipment is properly installed, operated, and maintained.

9. Ensuring that all communication equipment meets American National Standard Institute (ANSI), FCC and BLM regulations, guidelines and standards concerning radiation limitations by:

    a. Monitoring radiation levels at their facility; and,

    b. Immediately correcting any radiation levels that are, or could be a hazard to human health. (FCC 47 CFR sections 1.1307(b), 1.1310 and 2.1093) and FCC OET Bulletin 65, August 1997.

10. Providing a certified copy of all uses and the correct category of uses within the facility, along with the current phone numbers and addresses of all tenants and customers as of September 30th each year. This report is due by October 15th each year.

11. Keeping the premises around their buildings free of trash and debris.

12. Placing the BLM lease/ROW serial number on the door of their communications site building, or on a gate if a fenced compound.

13. Correcting all interference problems. The users are normally responsible for the resolution of conflicts when the licensees or agencies are operating within the limits of the FCC and NTIA/IRAC authorizations.

### C. Federal Communication Commission and National Telecommunication and Information Administration – Interagency Radio Advisory Committee

The FCC and NTIA/IRAC are responsible for Frequency Management. The FCC and NTIA/IRAC are not normally responsible for the resolution of conflicts when the licensees or agencies are operating within the limits of the authorizations.

## IV. AUTHORIZED USES AND USERS WITHIN A FACILITY

### Use by Multiple Users

Use of all facilities and improvements by more than one user, known as co-location, will be required except where the facility owner is a government agency. Site applicants will take the lead in this area and design their proposals to accommodate multiple uses of facilities and improvements. This includes multiple uses of buildings, towers, back-up generators, grounding systems, fuel containers, access ways and parking areas.

BLM will not authorize a ROW expansion or modification until it is determined that existing authorized space and facilities are being used to capacity. Development or expansion of a ROW solely to preclude potential competitors from locating nearby is unacceptable and will not be authorized by the BLM.

Facility Owners and Facility Managers are not required to lease facility space to others if they can prove to the authorized BLM officer that:

1. Space is not available.

2. The use is incompatible with the existing facilities.

3. Additional space is needed by the facility owner/manager.

4. Additional users would violate system security needs.

5. Potential interference is not resolvable.

## V. FEES

The BLM will charge Facility Owners and Facility Managers annual rental fees pursuant to federal regulations contained in 43 CFR 2806. The fees are based on two factors- the type of communications use, and the population served by the use. These fees are considered fair market value for the use of public land. The population Zone 9 (less than 25,000) will be used for these calculations unless something else is specifically agreed to in writing by the authorizing officer or until populations change.

Fees that Facility Owners and Facility Managers may charge their tenants and customers are to be reasonable (consistent with, and not in excess of, other fees for similar facilities) and commensurate with the uses and occupancy of the facilities and services provided to tenants and customers.

# VI. GENERAL OPERATION AND MAINTENANCE DIRECTION

## A. Unique Resource Considerations at this Communication Site

There are no currently identified special resource coordination considerations with on-site or adjacent resource values. Should special conditions arise through the revision process of the land use plan or other situations, this site plan will be amended accordingly.

## B. Wiring and Grounding

1. All equipment is to be installed within existing buildings and in metal equipment racks or within metal equipment cabinets and in accordance with manufacturers' specifications. All equipment, racks, cabinets and overhead ladder trays are to be grounded and shielded in compliance with National Electrical Code (NEC) and in accordance with accepted industry standards.

2. All electrical wiring and grounding must meet the NEC and applicable State/local codes. All permanent wiring shall be installed in metallic conduit. Surge protection shall be installed between the electric service meter and the first power distribution panel.

3. Lightning protection shall be in accordance with NEC part 810-20 Antenna Discharge Units and Part 810-21 Grounding Conductors. Periodic bonding of the antenna feed lines to the tower (when galvanized steel) shall be made with proper bonding connectors that are stainless steel (preferred), tin plated or made of brass.

4. Each building is to have its own separate grounding system for all users in that structure. Wherever practical, interconnection of individual grids and/or the simultaneous placement of a large sized copper ground wire with any new grounding systems that are buried on the site will be required.

5. Site or facility grounding must be constructed of copper, with #2 AWG or larger wire or 2" or larger solid copper strap, connected to an adequate site/facility ground electrode system. The site/facility ground electrode system shall be bonded to the power service entrance grounding electrode conductor. Guy wires should also be grounded using manufacturers approved methods to preclude bi-metallic junction and corrosion. All equipment on the site (buildings, towers, power units, transmitters, receivers, antennas, combiners, telephone systems, power cabinets, HVAC units, etc.) must be connected to the site/facility ground by direct connection. Electrical system ground wiring is required for electrical ground fault protection and circuit breaker coordination. The grounding systems shall comply with applicable laws, codes and in accordance with standard engineering practice. Below ground connections must use either an exothermic welding process (i.e. Cadweld, Thermoweld, etc.), copper wedge pressure devices (i.e. Ampact, Burndy, Wrench-lock, etc.), or brazed copper connections in conjunction with a mechanical UL listed connector (to be used as a physical strength enhancement component). Brazing by itself is not an acceptable method of bonding below earth grade (buried).

## C. Communications Equipment

Equipment Ownership

All equipment shall be labeled (or the information available at the site, as applicable) with:

1. The owner's name.

2. Transmitter frequency(ies).

3. A valid FCC, or IRAF, authorization.

4. Transmitting power output(s).

5. A current 24-hour phone contact number.

Transmitting Equipment

All transmitters will have protective devices (shields, filters, isolation components), designed into or externally installed, to prevent interference with other users. All transmitters will meet FCC licensing requirements. Two-way transmitters should have dual section isolators for a total of 60 dB of isolation.

The re-radiation of intercepted signals from any unprotected transmitter and its associated antenna system will be prevented by the use of appropriate filters (wide band and narrow band broadcast transmitters).

The direct radiation of out-of-band emissions (i.e. noise or spurious harmonics) will be reduced to a level such that they may not be identified as a source of interference as defined in the FCC Rules and Regulations (e.g. Part 90.209(e) for non-broadcast uses, and Parts 73 and 74 for broadcast uses). If site noise (electromagnetic noise) becomes an issue, noise threshold limits will be established, and amended into the site plan, prior to authorizing any new uses.

Direct radiation of out-of-bound emissions, (i.e. transmitter wide band noise, spurious emissions, harmonics, etc.) shall be reduced to a noninterference level by using bandpass, lowpass, and/or harmonic filtering. Where duplexing is used, use of a notch type device should be avoided.

Re-radiation of signals from a transmitter and its associated antenna system shall be prevented by installing appropriate devices (i.e. ferrite isolators), with minimum return loss of 25 dB.

All transmitters not in immediate use and not specifically designated as standby equipment shall be removed. Loads connected to circulators are to be capable of dissipating the total power output of the transmitter.

Receiving Equipment

All receivers shall comply with all applicable parts of the FCC rules, including Parts 2 and 15.

All receivers shall have sufficient “front end” pre-selection to prevent receiver spurious response. The use of bandpass, band-reject cavity or crystal filters may be required to prevent receiver-produced intermodulation or adjacent-channel interference.

Where duplexing is used, a bandpass cavity duplexer is required. Use of the notch-type device is not permitted. Where notch-type devices are currently in place and there are no interference problems, their use may continue until the equipment is replaced, at which time they must be replaced with bandpass devices.

Tower

Generally, only one tower is authorized for each facility owner. Facility Owners and Facility Managers may obtain permission to construct the second tower only after submitting evidence that demonstrates that their existing tower is completely filled and full use has been made of combining systems.

1. All towers will be left unpainted, if they are dull, galvanized steel. Paint is required only if the tower has a shiny (i.e., reflective) surface. If paint is required, the BLM will approve only non-reflective colors from the Munsell Soil Color Chart, Standard Environmental Colors, or the equivalent.

2. Maximum tower height for future towers at this site is 80 feet.

3. Anti-climb devices, removable steps, or other means to discourage unauthorized climbing, are highly recommended to reduce or avoid liability claims.

4. All new towers will be self-supporting. No guy lines are permitted.

5. To avoid possible impacts to birds or bats, follow the most current version of the U.S. Fish and Wildlife Service's Interim Guidelines on the Siting, Construction, Operation and Decommissioning of Communication Towers, available at the following website: *http://migratorybirds.fws.gov/issues/towers/comtow.html*

Antennas

1. Microwave (dish) antennas (other than ground mounted satellite dishes) will be limited to a maximum of eight (8) feet in diameter. The smallest diameter dishes are preferred if technically feasible.

2. Dishes should be mounted as low as possible to reduce visual impacts.

3. All antennas must meet all Occupational Safety and Health Administration safety standards. If an antenna exceeds FCC public radiation standards (see FCC OET Bulletin 65) at ground level in publicly accessible areas, it will be remedied within 24 hours after measurements are taken or isolated (e.g., fencing, signing, relocation, lowering power levels are all possible remedies). Ground measurements of RFR levels will be taken before mitigation measures are implemented.

4. Color(s) for dish antennas, or covers, must be pre-approved by the BLM. New white dish antennas and/or covers will not be approved. Existing white dishes and covers must be repainted or replaced with dishes of approved color (typically dark grey), as repairs or replacement become necessary.

5. Antennas will be purchased with or treated to have a non-reflective surface.

Interference

The responsibility for correcting interference problems is a matter for resolution between the lease/ROW holder of the facility(ies), the user causing the interference, and the affected party(ies). First users on a site have seniority with respect to the resolution of interference complaints. Senior holders have an obligation to maintain their equipment to industry standards, to operate their systems in accordance with the terms of both the FCC license and NTIA/IRAC frequency authorization, and to comply with the BLM authorization.

New users on a site must correct, at their expense, interference problems that they create. They may be required to furnish an intermodulation study, electromagnetic noise study, or other interference-related data and must agree to accept financial responsibility for elimination or prevention of any interference caused by the facility before their application can be evaluated. They must cease operation of the suspect equipment until the problem is corrected. If interference problems cannot be resolved or corrected within a reasonable time, the new use that is causing the interference may be terminated and the equipment removed.

All users shall cooperate with the Site Users Association, if one is formed, and the BLM in identification and correction of any interference. The BLM does not have authority for correcting interference problems but can act as a mediator to help all affected parties. Interference problems must be coordinated with the FCC or NTIA/IRAC, whichever is appropriate.

Interference with law enforcement and/or emergency communications must be corrected immediately. The operation of equipment covered by this site plan shall not interfere with United States Government radio or electronic operations already in existence on public land within two (2) miles of this site. The user causing this interference, shall, at its own expense, take all action necessary to prevent or eliminate such interferences. If it does not eliminate such interference within ten (10) days after receipt of notice from the BLM to do so, this use will be terminated.

If electromagnetic noise becomes an issue, noise thresholds will be established and this site plan will be amended accordingly.

## D. Cables and Transmission Line (Wave Guides)

All new cabling will be jacketed and shielded and shall either be flexible or semi-rigid type. Existing substandard cables will be upgraded as repairs or replacement become necessary.

Cables will be properly installed and will be strapped and fastened down. Use of ports at building entrance points will be kept to a minimum by use of combiners.

When attaching power cables onto a tower, conduits should be used. Coax and wave guides should be installed in a wave guide ladder or equally divided among all tower legs.

All transmission lines (wave guides) are to be supported in accordance with manufacturer's specifications.

Unjacketed transmission line of any type is prohibited. No transmission line shall be left unterminated.

Double shielded braided or solid shielded cable will be used. No RG-8 type cable is permitted. No connector-type adapters will be used on transmission lines. Only correct connectors that will mate to connected devices are to be used.

Conduits will be shared when they service common areas and will be buried where possible.

## E. Radiation

All communications uses must meet ANSI, FCC and BLM regulations guidelines and standards concerning radiation limitations. This site is considered uncontrolled for the purposes of compliance with RFR standards.

Monitoring radiation levels at the site is the responsibility of all site users and will occur at intervals to comply with FCC regulations and guidelines. A copy of these monitoring reports will be provided to the BLM upon request. The FCC is responsible for enforcement of the monitoring and standardization for compliance. The FCC could revoke the license and/or issue a fine for failure to comply. Additionally, the BLM could terminate or suspend the use authorization for failure to comply.

Onsite RFR measurements will be taken using appropriate equipment that can adequately measure and record both on-tower and on-the-ground levels before mitigation measures related to RFR are implemented pursuant to FCC standards and requirements.

Security fences with RFR notice signs are required around areas that exceed public use levels including anchor points outside the primary facility compound fence, if necessary. Raising higher power transmitting antenna on the tower or modifying the antenna type to half wavelength may be necessary to eliminate RFR hazards. Reducing power may also be required if other alternatives are not feasible. All fencing location and design or new tower construction must be pre-approved by the BLM.

Warning signs will comply with ANSI C95.2 color, symbol, and content conventions. Contact information including name and telephone number will also be included on warning signs.

Existing warning signs compliant with FCC 47 CFR 1.1307(b) which do not currently include name and telephone number will be accepted as long as the name and telephone number is clearly posted on other signage at the Lessee's site.

Lowering power levels for on-tower access during maintenance will be coordinated between affected users.

Any identified RFR problems that are, or could be, a human health hazard must be corrected within 24 hours after measurement tests have been completed or be removed from the site by the site user(s). If the proposed corrective action involves any new ground disturbance, it must be pre-approved by the BLM.

## F. Utilities-Availability of and Requirements for:

Commercial Electrical Power

Commercial power is provided to the site under a separate ROW grant to Pacific Power and Light (WYW 266495). The current electrical service to the site has the capacity to service additional users at the site. Future upgrades of the electrical service will be part of the ROW to Pacific Power and Light and may need to be paid for by the benefiting user(s).

Telephone Service

If telephone service is ever deemed necessary, a separate ROW grant will be issued. Site users will also pay for the cost of:

1. The necessary resource surveys and reports for service connections.

2. The cost of constructing service connections.

For visual reasons, overhead utility poles may not be authorized.

Fuel Tanks

Facility Owners and Facility Managers are responsible for providing fuel storage (propane and diesel) and emergency power for their tenants and customers. No tenants or customers will be authorized to have separate fuel tanks and/or generators. Each facility owner will preferably consolidate fuel storage into a tank large enough in size to accommodate all tenants and customers within their facility. At a minimum, tanks will be grouped together in a consolidated area adjacent to their facilities. All fuel, storage tanks

(e.g. LPG, propane and diesel) must meet current fire department, Federal, State and local government safety and hazardous materials requirements. Propane is the preferred fuel for future generators.

1. All tanks will be:

    a. Signed in red letters, "SMOKING OR OPEN FLAME PROHIBITED WITHIN 20 FEET"

    b. In conformance with National Fire Protection Association requirements

    c. Painted an approved color or screened by an enclosure to blend in with the natural environment. If an enclosure is used, it must be pre-approved and painted an approved color from the Munsell Soil Color Chart, Standard Environmental Colors.

2. Diesel tanks will also be:

    a. Enclosed in BLM and fire department approved secondary containment vaults that are painted a BLM approved color from the Munsell Soil Color Chart, Standard Environmental Colors.

    b. Constructed with underground fuel lines. Fuel line must be constructed of black, treated pipe and fittings, and must be posted.

    c. A containment basin must be maintained below all diesel tanks which are not designed and approved to be self-contained.

## G. Sanitary Facilities

Plans for any sanitary facilities must be pre-approved by the BLM. If it is determined by the BLM that the users need such facilities, they will be provided by the lease/ROW holder in a manner and location satisfactory to the BLM and within the requirements of the Sweetwater County Health Department.

## H. Security and Law Enforcement

The Sweetwater County Sheriff's Department is the key law enforcement agency for the area. They are responsible for most civil and criminal matters. The BLM will be responsible for enforcing matters related to uses of BLM lands (e.g. resource protection issues).

Patrolling and policing for security purposes is the user's responsibility.

None of the facilities on Aspen Mountain are currently fenced. If fencing is ever deemed necessary for security purposes at other facilities on the site, it must meet the following criteria:

1. All fences must meet health and safety requirements.

2. All fence locations and design require BLM pre-approval. The standard fencing type will be chain-link (i.e. cyclone).

3. The standard fence height will be eight (8) feet.

4. Fencing will be designed, installed, maintained, and of a type to minimize interference issues as described in the Motorola R-56 standards.

5. Fences will be signed with RFR notices if RFR is above public levels.

## I. Site Maintenance

The objective of maintenance activities is to present a clean, neat, and orderly appearance at the site and have all of the authorized improvements safe for workers and the public. All users will keep up the overall appearance of the site.

Miscellaneous debris remaining after any construction and/or equipment installation, removal or modification, is not only a hazard, but can cause interference or intermodulation problems. In particular, all loose wire or metal objects are to be removed from the site.

The users of the site will remove all graffiti within 10 working days of finding it, weather permitting.

Users will not be permitted to leave or dispose of trash, garbage or cut brush on public lands. No outside trash or litter containers will be provided. Site users will remove litter from the site as it is produced.

Policing of litter in common areas (i.e. areas between buildings and developed sites) is the shared responsibility of those holders bordering these areas.

During construction and/or maintenance, excess materials (e.g. cement, wire, metal, building materials) will be removed from public land.

Peeling paint on buildings and/or towers will be re-painted within thirty (30) days of discovery by the facility owner or facility manager and within 10 days of notification of the holder by the BLM, weather permitting.

The Lessee is responsible for the abatement and control of noxious weeds within the bounds of their lease site and common use areas. Abatement practices are to be implemented in accordance with the RSFO weed abatement programs.

## J. Inspections

Enforcement authority is vested in the BLM as the Communications Site Administrator for Aspen Mountain via 43 CFR 2800. The BLM may conduct an annual inspection of each user's facility. This inspection will verify:

1. Compliance with technical standards.

2. Structural integrity.

3. As-built plan accuracy.

4. Electromagnetic compatibility.

5. General site health, safety, and cleanliness.

The BLM shall provide written notice of the scheduled inspection date at least 30 days in advance. Each user shall arrange to have personnel available at the site at the time of the inspection.

Any non-compliance found by a user shall be reported to the BLM. The BLM will conduct an inspection and a written copy of the inspection report shall be forwarded to the violating user within 30 working days following the inspection. The report shall include:

1. A description of the violation.

2. Corrective action required.

3. Name, address, and organization of the responsible party.

4. Time allowed for completion of corrective measures.

5. Anticipated action in the event of noncompliance with remedial instructions.

## K. Fire Prevention and Hazard Reduction Requirements

Facility Owners and Facility Managers will be required to control vegetation within the fenced area around their facilities. Gravel or mineral soil (i.e. bare ground) must be maintained to a minimum of (10) feet clearance around buildings and a minimum of (10) feet clearance around any propane tanks. Identified threatened, endangered, or sensitive plant species must remain within the minimum clearance areas.

Smoking is prohibited in flammable vegetation areas.

Roof structures shall be kept reasonably clear of debris at all times.

No explosives will be stored at this site. Flammable materials shall be stored in conformance with the requirements of local fire regulations. Flammables will be placed in closed containers and stored away from sources of ignition and combustible materials. If flammables are stored within a building, the building will be locked, properly signed and well ventilated.

Approved spark arresters will be required and maintained on all internal combustion engines.

At least one (1) U.L. rated 20 lb. A:B:C dry chemical fire extinguisher is required inside each building. Prior to each June, fire extinguisher(s) shall be inspected by holders and refilled, if necessary.

Any fire will be immediately reported to “911”, the nearest BLM office and/or Sweetwater County Sheriff.

BLM Officers will make periodic fire prevention inspections. They will call to the holder’s attention any lack of compliance with the above regulations, plus any other existing hazards. Compliance with these inspections is required within the time limits specified in the inspection report.

All fire protection standards must be accomplished by the beginning of fire season unless otherwise agreed to, and then maintained throughout the fire season.

For new construction, the BLM will provide the Holder with a separate Construction Fire Plan which will be prepared at that time as applicable

## L. Access Maintenance and Restrictions

Roads

If a user association is formed on Aspen Mountain, the costs of road maintenance will be assessed by the association and enforced through this management plan. If a user association is not formed, maintenance

costs will be assessed depending on the amount of use on the road. If there is disagreement among users as to the assessed costs, BLM will determine the costs to be borne by each leaseholder.

Individual users who damage or disturb the access road, or any associated structures, such as ditches, culverts, roadside vegetation, signs and/or underground utilities or facilities, will be required to repair the road and/or associated structures, to conditions equal to or superior to those prior to any damage or disturbance. This work must be done according to applicable road maintenance standards per BLM manual Section 9113 and may require the appropriate NEPA analysis.

Interior Site Driveways/ Parking Areas

Interior site driveways within the communications site will be maintained by the site users. Interior roads will be planned and approved during establishment of new facilities. Interior roads will be maintained in a manner to allow only one entrance to the site. Off-road vehicle use by a user in and around the communication site will be avoided.

Road Closures

Native surface roads are subject to periodic closures to entry during periods of extreme fire danger, inclement weather, or wet conditions. Authorized site users may use the site during these periods but should use judgment and may need to seek advance approval from the BLM.

## VII. CONDITIONS FOR CONSTRUCTION, MODIFICATIONS OR EXPANSION

### A. Facility Owner/Manager Responsibilities

In addition to the responsibilities listed in Section III, new applicants and existing Facility Owners/Managers proposing new, modified, or expanded facilities are responsible for:

1. Submitting a complete application to the RSFO (ATTN: "Realty Specialist") prior to any new construction or modifications to existing improvements, unless new electronic equipment is being installed in/on an existing tower and/or an existing building. The application must include:

    a. The appropriate cost recovery and application fees as determined by BLM.

    b. A copy of the approved Site Plan Base Map showing all of the proposed (new) facilities including structures, towers, and auxiliary equipment.

    c. Completed drawings/plans prepared by a registered engineer and Plan of Development approved by the BLM.

    d. Identification of any microwave beam paths, a plot of their azimuth(s), and their proposed elevation(s) on the tower.

    e. Documentation that shows that proposed facilities will not be obstructing, or interfering with, any existing fixed point to point antennas, omni-directional broadcast antennas, or microwave beam paths in the directions of primary population targets. Proposed beam path needs must be shown on Site Plan Base Map.

    f. Any needed recommendations, changes or modifications to their original proposal, based on any required resource surveys and/or reports.

2. Demonstrating that their proposals will not cause undue interference with any existing uses before the BLM can approve new facilities. In addition, it is the applicant's responsibility to show that any new facilities will make the most efficient use of the limited amount of space at the site.

3. Showing their proposals will provide for future users without additional construction.

4. Providing engineering and geotechnical investigations for development of specific foundation designs and grading plans.

5. Provide for erosion control as part of the Plan of Development prior to construction activities. At a minimum, erosion control must include: sediment control, stipulations that cut/fill slopes will be graded and contoured to prevent erosion and/or excessive runoff, and recommendations for temporary erosion control measures, (e.g. netting, silt fences, swales, and/or sediment collection areas).

6. Coordinating with other Federal (e.g., FCC and Federal Aviation Administration (FAA)), State and County agencies and obtain all required approvals and/or permits.

7. Providing 30-day notice to all facility owners/facility managers at the site, as well as the BLM, of all new frequencies proposed for the site. A completed BLM technical data sheet or equivalent must be sent with the 30-day notice to allow for comment of potential interference. This would be for new frequencies for themselves and their tenants and customers.

8. Insuring that all written approvals have been obtained from the BLM prior to construction. In addition:

    a. Directional antennas will only be protected within the arch between their licensed 3 dB points.

    b. New and/or modified facilities will not obstruct existing fixed point-to-point antennas or omni-directional broadcast antennas in directions of primary population targets.

## B. Construction Methods and Resource Protection

Plans submitted by an applicant for any new construction or modifications shall specify provisions for soil rehabilitation measures including, but not limited to, soil replacement and stabilization and for proper handling of runoff from buildings, parking area, access roads, and undeveloped common areas.

The following methods and resource protection measures will be required to minimize impacts during construction:

1. Avoid and protect sensitive resource areas, as identified by the BLM.

2. Compliance with the Plan of Development and the Erosion Control Plan.

3. During construction and/or maintenance, no paint or paint thinners will be disposed of on site.

4. Minimize ground disturbance and vegetation removal as much as possible during construction activities. All ground-disturbing activities require BLM pre-approval.

5. Disturbed areas will be re-vegetated with species pre-approved by BLM as soon as possible after construction. If necessary, reseeding will be required until vegetation is successfully established as determined by the BLM.

6. No grading material will be cast off during construction/reconstruction activities. Excess soil can be used for fill material on road and/or building/tower pads.

7. Temporary, on-site storage of construction materials will require pre-approval by the BLM.

8. Construction materials and supplies, except for hazardous materials (see number 9 below), may be left unattended at the construction site at the end of each workday, but at the owner's risk.

9. Hazardous materials, including, but not limited to all fuels, oils, and lubricants are not to be left unattended at the site at any time. During construction, these materials are to be removed from the site at the end of each workday, or temporarily stored inside a locked and signed building until the following workday.

10. All surplus construction materials and/or waste debris must be removed from the site no later than thirty (30) days after construction has been completed.

11. Any earth moving or heavy equipment (e.g. dozers, graders, cranes, backhoes, etc.) leaving the designated roadway and/or approved parking area(s) to perform authorized activities at the site, will be washed off prior to being brought onto public lands to prevent the introduction and spread of noxious weeds into the area.

## C. Construction Inspection

1. All new construction, reconstruction, or major modification shall conform to the established technical standards and accepted engineering practices (i.e., the Uniform Building Code).

2. Any construction inspections required by other applicable agencies are the responsibility of the lessee/holder. Copies of completed inspections are to be provided to the RSFO, AO, either as they occur or as part of the final as-built plan. Inspection information shall become a permanent part of the holder's lease/ROW case file.

3. The Lessee/Holder agrees that corrective work detailed in BLM, or other agency required compliance inspections, would be completed by the scheduled completion date. If the Lessee/Holder disagrees or has questions about specific items, the Lessee/Holder must contact the BLM in order that the disagreement or item may be resolved.

4. A final set of as-built plans will be submitted to the RSFO, AO, within 90 days of acceptance of structure (if contracted) or of completion date.

## D. New or Remodeled/Expanded Buildings

1. Any new buildings must be designed to accommodate multiple users along with fitting into the physical environment as defined in a site-specific environmental analysis developed at the time of the proposal.

2. Buildings are required to be one-story. The roof must be metal or covered with metal to be fire resistant. Roofs can be equipped with antenna support structures, such as poles and railings that can extend up to 25-feet above ground level.

3. Facility Owners and Facility Managers are encouraged to construct the interior of their buildings in a modular fashion, so that they can:

a. Sublease sections to others.

b. Provide tenants and customers with internal separation and security.

c. Reduce physical interference.

d. Increase management effectiveness.

4. The following materials are approved for construction of new facilities (i.e. buildings)

a. Floors – Concrete slab with drainage.

b. Walls – Concrete block metal or pre-fabricated concrete.

c. Roof – Metal, or concrete, if painted to eliminate shiny surfaces, or other fireproof material as approved by the BLM. Proposals for wooden roofs will not be approved.

d. Partitions – If it is felt partitions are necessary in buildings, ensure they are constructed with fire resistant material (e.g., concrete block, reinforced concrete, or properly grounded fencing.

e. Color – Proposed color for use on all exterior building surfaces must be pre-approved by the BLM. The goal of the color selection for the facilities is to make the building as inconspicuous as possible and make buildings located on the skyline look inconspicuous when viewed from a distance. The intent is to reduce or eliminate glare from reflective and/or illuminated surfaces such as windowpanes, sheeting and reflective paints. Non-reflective, BLM approved colors will be used on equipment buildings.

5. Building entry lights must:

a. Only light the immediate area in the vicinity of the door.

b. Be motion activated and have a limited time duration (e.g., 3-5 minutes).

c. Have a shielded beam that is pointed at the building door.

Requests for all-night (i.e. "dusk-to-dawn") lighting, or entry lighting that would be visible from outside of the site will not be approved. FAA required lighting would be the only exception.

## E. New or Remodeled/Expanded Towers

1. All new construction, reconstruction, and modifications to towers will be pre-approved by the BLM prior to implementation.

2. It is the applicant/holder's responsibility to assure that a new, or modified, structure will not unduly interfere electronically or physically with any existing equipment at the site. Towers must be spaced, so as to prevent ground level radiation and/or interference problems. This must be clearly demonstrated in writing to the BLM prior to issuance of a new lease/ROW or amendment.

3. All new towers will comply with current structural and safety specifications and design standards, including safety-climbing devices. Towers should be as narrow and "open" as safety and structural integrity allow. New towers will be designed using maximum wind, snow, and/or tower loading anticipated for the site.

## VIII. SITE ASSOCIATION/ADVISORY GROUP

A Site Users' Association is recommended at this site. If formed in the future, all lease and ROW holders would be encouraged to join the association. The goal of the association would be to maximize the effective use of the site, coordinate access and maintenance. The objective of a sanctioned association would also be to represent all site users as a group when dealing with the BLM RSFO on matters relating to the site administration. The association would be able to work in cooperation with the BLM to identify problems or opportunities and make recommendations to the BLM for any changes in management strategies at the site. The association could also provide input to the BLM regarding the future addition of equipment and facilities at the site.

While the advice and recommendations of the association would not be binding on the BLM, the BLM could use the input for administration of the site. The BLM would be a member of such a group and would help jointly develop the charter (i.e., the ground rules).

The goal of the Site Association would also be to maximize the effective use of the site. The objective of a sanctioned association will be to represent all site users as a group when dealing with the RSFO on matters relating to the Site administration. The association would be able to work in cooperation with the BLM to identify problems or opportunities and make recommendations to these entities for any changes in management strategies at the site. The association could also provide input to these entities regarding the future addition of equipment and facilities at the site. While the advice and recommendations of the association would not be binding on these entities, they could use the input for administration of the site. The BLM would be a member of such a group and would help jointly develop the charter (i.e., the ground rules).

In the absence of a formal Site Association, the BLM may utilize a Site Advisory Group that can make suggestions and/or recommendations to specific problems associated with the administration of the site.

## IX. APPENDICES

**A. Location and Site Maps**

**B. Authorized Facilities**

**C. Site Photographs**

**D. Inspection Checklist**

# APPENDIX A

LOCATION MAP

SITE MAP

# APPENDIX B

ASPEN MOUNTAIN COMMUNICATIONS SITE LESSEE/HOLDER FACILITY TABLE

(See associated User's Table on the Website)

| | Auth # | Use | Building | Tower | Access/Parking | Other |
|---|---|---|---|---|---|---|
| **Facility #1 Colorado Interstate Gas** | **WYW53936** | **PMRS** | **6'x 10' Fabricated 6' x 8' Aggregate** | **75' lattice self-supported** | **Access and parking** | **14 KW Generator, 500 gal. propane tank** |
| | | | | | | |
| **Facility #2 Communications Technology, Inc.** | **WYW 105090** | **FAM** | **8'x 8' Corrugate 8' x 8' Fabricated** | **60' Guyed 50' guyed** | **Access and parking** | **50 KW Generator, 200 gal. propane tank** |
| | | | | | | |
| **Facility #3 BLM** | **WYW52096** | **PMRS** | **8'x16' Fiberglass** | **80' lattice** | **Access and parking** | **None** |
| | | | | | | |
| **Facility #4 Sterlings Communication** | **WYW 167541** | **PMRS** | **8'x 20' Steel Container** | **None** | **Access and parking** | **None** |
| | | | | | | |
| **Facility #5 QWEST** | **WYW 107566** | **Micro** | **10' x 12' 6' x 8' 8' x 16'** | **40' Guyed 30' Lattice self-supported** | **Access and parking** | **12.5 KW Generator, 500 gal. propane tank** |
| | | | | | | |

# APPENDIX C

SITE PHOTOGRAPHS

(See associated Facility Photos on the Website)

| | |
|---|---|
|  | Facility No. 1 |
|  | Facility No. 2 |
|  | Facility No. 3 |

| | |
|---|---|
|  | Facility No. 4 |
|  <br>  | Facility No. 5 |

## APPENDIX D

### "Aspen Mountain Annual Technical Inspection"

Date Inspected:_____ Time Inspection: _____

Permit Holder:_____ Authorization # _____

Site Technician:_____ Phone # _____

Number of Transmitters_____ License Posted _____

*Please mark the following Items as Acceptable (A) or Unacceptable (U).*

Electrical Wiring----------(A) (U) Grounding---------- (A) (U)

Equipment Installation---------- (A) (U) Housekeeping---------- (A) (U)

Building Repair---------- (A) (U) Tower Repair ---------- (A) (U)

*Please mark the following Items as Yes (Y) or NO (N) or (NA)*

Isolators---------- (Y) (N) (NA) Circulators----------(Y) (N) (NA)

Cavities ----------(Y) (N) (NA) Terminators ---------- (Y) (N) (NA)

Filters ---------- (Y) (N) (NA) Lightning Protection ---------- (Y) (N) (NA)

Comments: _____

_____

Recommended Corrective Action: _____

_____

_____

Required Corrective Action to Be Taken: _____

_____

_____

_____

_____

Committee Representatives: _____

Bureau of Land Management Representatives: _____

*Please make the required corrective action within the next 120 days. Please make a written report of corrective action taken and submit to the BLM. If you should have any questions, please call the BLM office.*

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# APPENDIX N—TECHNICAL REPORT: SOCIAL AND ECONOMIC IMPACT ANALYSIS METHOD



## N.1 GENERAL ASPECTS OF THE METHODOLOGIES

### N.1.1 Assumptions

The following basic assumptions underlie all of the social and economic analyses:

- Economic contributions to the socioeconomic study area, in terms of labor earnings and employment, would accrue from activities on Bureau of Land Management (BLM)-administered land such as oil and gas development, coal production, trona (soda ash) production, livestock grazing, and recreation.
- Nonmarket values, including both use and nonuse values would accrue from BLM lands, including ecosystem services on those lands.
- Employment and income (especially labor earnings) would continue to be a driver of economic and population growth in the socioeconomic study area.
- Housing supply and costs and community infrastructure and services may be constraints on population growth in some locations within the planning area.
- Tax and royalty revenues derived from activities on BLM-administered lands would continue to have fiscal implications for communities within the socioeconomic study area, the state, and the Federal Government.
- Activities and resources available in and around the planning area would continue to be important to the quality of life of current and future residents.

- The pace and timing of mineral development activities is dependent on a variety of factors outside the management decisions of the BLM. These include national and international energy and sodium product demand and prices, production factors within the planning area, and business strategies of operators.
- Future oil and gas drilling and production will be as projected in the Reasonable Foreseeable Development (RFD). As discussed above, actual drilling and production of federal minerals, and the economic impacts associated with these activities, may deviate from the RFD for variety of reasons outside the management decisions of the BLM. Actual economic impacts could vary if actual development or production varies from the RFD projections, or if prices change.
- Demand for use of BLM-administered land for livestock grazing will continue through the study period.
- Demand for use of BLM-administered land for recreational activities, including off-highway vehicle (OHV) use, throughout the planning area will remain steady or increase through the study period.

The discussions below of the specific methodologies for each resource use provide additional assumptions used in the analyses.

## N.1.2 Quantitative Economic Impact Analysis Using IMPLAN

The economic impact analysis uses two general approaches. These are quantitative analysis, and qualitative analysis.

The quantitative analysis approach is used when possible, given adequate available information and resources. In this study, adequate data was available for five resource uses:

- Oil and gas development and production
- Coal production
- Trona (soda ash) production
- Livestock grazing
- Recreation

The basic strategy used in quantitative economic impact analysis is to first identify the direct impacts of an economic activity affected by management decisions. For instance, direct impacts include expenditures made by oil and gas companies to drill a well, and to complete the well for production. Primary impacts also include the value of the oil and gas that is produced and sold. Next, where primary impacts can be quantified, they can generally also be run through an economic model to estimate the total economic activity that is generated as the primary impact ripples through the economy, as the directly affected industries purchase goods and services that are necessary inputs to production, and as labor income generated from production is spent by the households that receive the income.

The total economic effects are estimated in this study through use of the IMPLAN (IMPact analysis for PLANning) model. The IMPLAN model was originally developed by the U.S. Forest Service and is commonly used by the BLM and many other government and private sector organizations to estimate the total economic impacts of various activities, actions, and policies. The model tracks inter-industry and consumer spending in a local (or regional) economy, allowing estimation of indirect and induced economic impacts in the local economy that result from the original economic activity or a change in economic activity. Indirect impacts result from local inter-industry purchases caused by the direct impact, and induced impacts results from re-spending of labor income (i.e., local purchases by households of employees and

proprietors of the affected industries). The re-spending represented by indirect and induced impacts is often referred to as the "multiplier effect."

Outputs of the IMPLAN model include economic output, labor income, and employment. These are defined as follows:[1]

**Employment (jobs) –** A job in IMPLAN equals the annual average of monthly jobs in that industry.[2] Thus, one job lasting 12 months equals two jobs lasting six months each, equals three jobs lasting four months each. It is important to note that IMPLAN, based on some of its data sources, does not distinguish between full-time and part-time jobs. Sectors with higher labor earnings per job are likely to reflect a high proportion of full-time jobs, while sectors with low labor earnings per job often reflect a significant number of part-time jobs.

**Labor Income (earnings) –** All forms of employment income, including Employee Compensation (wages and benefits) and Proprietor Income.

**Economic Output (gross regional economic output) –** Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers, output is sales plus or minus change in inventory. For service sectors, output equals sales. For retail and wholesale trade, output equals gross margin, not gross sales.

By constructing "social accounts" that describe the structure and function of a specific economy, IMPLAN creates a *localized* model to investigate the consequences of projected economic activity in a geographic region. The IMPLAN model uses data specific to the local economy wherever possible, but also uses some data based on national-level economic relationships. Therefore, the model benefits from "calibration" of some of its data to better reflect the local economy. For this study, IMPLAN was calibrated based on work the University of Wyoming has done with the model in Wyoming over many years, and with data specific to this study. The specific IMPLAN impact analysis methodologies and assumptions for each resource use are described below.

The analyses used Version 3.0 of the IMPLAN modeling system. The IMPLAN model is managed by and available from the IMPLAN Group, LLC (http://implan.com/).

## Study Area

The economic impact analyses were conducted for activities on federal lands administered by the Rock Springs Field Office (RSFO), with the economic impacts calculated for a study area consisting of the five counties in and around the field office that could potentially be most directly impacted by the management alternatives. These counties were:

- Fremont
- Lincoln
- Sublette
- Sweetwater
- Uinta

[1] *Based on the glossary from the website of the previous publisher of IMPLAN, the Minnesota IMPLAN Group. This website is no longer available.*

[2] *This is the same definition used nationally by the Quarterly Census of Employment and Wages, United States Bureau of Labor Statistics, and United States Bureau of Economic Analysis.*

The rationale for defining the study area as these counties is provided in the Socioeconomic Baseline Report.

### Timeframe of the Analyses

Economic impacts were estimated across a 16-year time period (2016–2031). The oil and gas RFD scenario provided estimates for 2012–2031. However, the BLM determined the study period would begin in 2016 and it was not useful to incorporate estimates or actual values for years that had already passed when the IMPLAN analysis was conducted in mid-2016 and re-run in October of 2019 for final changes to the management alternatives. All other analyses were scoped to the same period.

### Base Year Dollars and Discounting

All dollar figures throughout the economic analysis are in constant 2014 dollars. This is the base year used in the IMPLAN model.

Some of the results tables of Chapter 4 represent the total value across the period 2016 to 2031. Values for future years are discounted to adjust for the "time value of money." This is an economic concept that refers to the value of a given amount of money being less in the future. Most people, presented with a choice, would rather have a dollar now than a dollar 10 years from now, or even one year from now because the dollar can be put to productive use now. When monetary values of an action vary over time, economists adjust for the time value of money by applying an annual discount rate to the amounts in future years. This is different than adjusting for inflation, which is a loss in money's value in the future due to a rise over time in prices for given products and services across the economy. The result of adjusting for the time value of money is known as the "present value." Providing present values for 2016–2031 for all the economic impact analyses allows for comparison – based on a reasonably lengthy period, and subject to some differences in approach noted in each resource use summary section – of the relative economic impacts of each resource use.

The choice of a discount rate is a key analytical decision, because as the discount rate increases, the value of future dollars when "brought back to the present" decreases. Often economists use the discount rates recommended by the federal Office of Management and Budget (OMB) in Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs," and Circular A-4, "Regulatory Analysis." These documents recommend use of multiple discounts rates to reflect different economic perspectives. Specifically, OMB recommends use of a 7% discount rate to reflect the average before-tax rate of return to private capital in the U.S. economy. Use of this discount rate reflects how industry makes capital allocation decisions. OMB additionally recommends a lower discount rate, 3%, to reflect the "social rate of time preference," which addresses how policy affects private consumption decisions (OMB 1992, OMB 2003, OMB 2011). Accordingly, the BLM uses these discount rates in this Resource Management Plan (RMP)/Environment Impact Statement (EIS).

## N.1.3 Qualitative Economic Impact Analysis

In the other approach, where primary impacts cannot be readily quantified, often the economic impacts can still be described qualitatively. In such cases, the focus of the analysis is to describe the type of impact in a base scenario (in this planning effort, Alternative A) and then assess the relative changes (qualitative indications of increases or decreases in economic values) that would be likely under other alternatives. This approach may be used with impacts to market values and is often used with impacts to nonmarket values. The term nonmarket values refers to the benefits individuals attribute to experiences of the environment or uses of natural and cultural resources that do not involve market transactions and therefore lack prices. Because these values are not priced, they are difficult to estimate, but nonetheless BLM guidance calls for efforts to be made to identify and assess impacts to nonmarket values in the planning process (BLM

Instruction Memorandum No. 2013-131, Guidance on Estimating Nonmarket Environmental Values, May 31, 2013).

Some of the management decisions under this planning action would result in increased expenses to operators – the firms or individuals who undertake the activities – or to project proponents. The economic impacts of decisions that increase expenses for operators and/or project proponents are many and can be complex. Expense increases may cut into profitability and drive delays to, reductions in, or cessation of operations or projects. However, where operations or projects are not delayed, reduced, or terminated, increased expenses also represent increased economic activity. For instance, if restrictions under an alternative result in a new power line having to take a longer route, additional expenditures for materials, equipment, and labor would be made. These increased expenditures would support some amount of additional income and employment. However, increased expenses may also represent opportunity costs; that is, the project proponent or society may have benefited more if the additional funds were used in another way. In the socioeconomic analysis in Chapter 4, where management actions would potentially increase expenses to operators or project proponents, these increased expenses are pointed out and discussed qualitatively. Readers should keep in mind that these increased expenses may negatively impact operators, may benefit others in society, and may incur opportunity costs.

## N.1.4 Social Impact Analysis

Social impacts may be driven by economic impacts, such as when changes in employment due to management decisions lead to impacts on population, housing, and community services. Other impacts may be more purely social and cultural in nature and can include impacts on quality of life, recreation and amenity values, and traditional land uses and associated cultural values. Social impacts may be marginal or substantial, depending on the degree to which new and revised management actions alter the course set in previous BLM decisions.

Sometimes social impacts can be quantified; however, in this analysis social impacts are described qualitatively. This is because social impacts of BLM management decisions may vary considerably depending on the nature of the community(ies) involved. For a planning effort that covers as large a geographic area as this effort, analysis of social impacts must necessarily use a broad brush.

A key aspect of the social impacts analysis approach is to address impacts based on the varying points of view of key types of stakeholders. The Socioeconomic Baseline Report identifies several broad categories of stakeholders to BLM management decisions in the RSFO. These categories reflect different linkages people have to public lands. They also reflect distinct sets of attitudes, beliefs, values, opinions, and perceptions about public resources and the effects of various management policies and actions.

Categorization of stakeholders is not meant to imply that all individuals and social groups fit neatly into a single category; many specific individuals or organizations may have multiple interests and would see themselves reflected in more than one stakeholder category. The point of categorization is to allow differentiation of social impacts based on broad differences in points of view. The social impacts analysis assesses the alternatives against the different points of view in the broad stakeholder categories.

## N.1.5 Environmental Justice Impact Analysis

Definitions and methods for analysis of potential environmental justice issues are described in the Socioeconomic Baseline Report. In short, the socioeconomic study area was screened to identify geographic subareas with minority and low-income populations that qualify as potential environmental justice populations based on guidance for environmental justice analysis from the Council on Environmental Quality. These subareas and their potential environmental justice populations are noted in Chapter 3 of the EIS as well as the Socioeconomic Baseline Report. Further assessment of the likelihood of impacts to these populations was conducted as described in Chapter 4 of the EIS.

# N.2 METHODOLOGIES BY RESOURCE USE

## N.2.1 Oil and Gas

### Introduction

The analysis for oil and gas economic impacts was divided into two phases of oil and gas economic activity:

- Development (Drilling and Completion)
- Production

The analysis focuses only on *new* BLM-managed oil and gas wells on federal mineral estate within the RSFO. This is because the management decisions under consideration in the RMP essentially only apply to new oil and gas leasing and not to existing leases. The economic impact figures for the new oil and gas wells are a subset of the economic impacts of all oil and gas wells (new *and* existing) on federal mineral estate in the field office, which in turn are a subset of the economic impacts of all oil and gas wells on all federal *and non-federal* mineral estate in the field office (i.e., including wells on privately and state-owned mineral estate). Put another way, the impact estimates do *not* include the economic impacts of any existing wells on federal mineral estate, nor of any wells (new and existing) on non-federal mineral estate.[3]

Likewise, the percentage differences for Alternatives B, C, D, and the Proposed Alternative in comparison to Alternative A only represent changes for new wells on federal mineral estate; they do *not* represent the percentage change to *total* economic activity resulting from all oil and gas development and production. The percentage change to total oil- and gas-related economic activity would be smaller, because while the absolute difference between alternatives in dollars or jobs would be as shown in the tables in Chapter 4, the base for comparison, all oil- and gas-related economic activity, would be larger because it would include the contributions of existing wells on federal mineral estate and of wells on non-federal mineral estate.

### IMPLAN Model Modifications

The IMPLAN modeling system utilizes national production coefficients. To better reflect local production practices, the oil and gas sectors of each model were modified. In IMPLAN, oil and gas development and production is divided into three sectors:

| Number | Sector Name |
|---|---|
| 20 | Oil and Gas Extraction |
| 37 | Drilling Oil and Gas Wells |
| 38 | Support Activities for Oil and Gas Operations |

The following protocol was used to modify the individual sectors. Total output for the Oil and Gas Extraction Sector was based on county level production quantities reported by the Wyoming Oil and Gas Commission and U.S. Energy Information Administration (EIA) 2016–2031 oil and gas price projections for Dakotas/Rocky Mountain Region (adjusted to 2014 dollars). Total output for the other two sectors was estimated from output per employee ratios derived from the United States Census Bureau's Economic Census. Employment estimates were based on United States Bureau of Labor Statistics (BLS) covered employment data. These estimates were adjusted to account for self-employment using United States Bureau of Economic Analysis (BEA) data. Earnings were also based on BLS data. These estimates were adjusted to account for benefits using BEA data. Intermediate payments for oil and gas production were scaled based on estimated cost of production for oil and gas production in the Rocky Mountain region.

[3] *A nuance here is that the figures for oil and gas production do include estimated production from the wells the RFD estimated would be placed into service from 2012–2015. In the production estimates for each year from 2016 to 2031, it was not possible to separate out the production from the 2012–2015 wells from the total production.*

Additional industry sectors that receive some direct expenditures from oil and gas development did not require modification.

## Development (Drilling and Completion) Impacts

Information on the number of wells to be drilled in the RSFO for each alternative was obtained from the RFD scenario estimates provided by the BLM's RRD scenario. The RFD estimates were broken down between conventional and coalbed natural gas (CBNG) wells and by Bureau-managed wells and all wells. Conventional wells include both vertical or directional wells and horizontal wells. Only Bureau-managed wells were considered in this analysis.

The RFD estimated total wells drilled across the planning period. As shown by recent history, drilling activity can vary substantially from year to year. Therefore, the total estimated wells from the RFD were allocated equally to each year of the study period for the purposes of conducting the economic impact analysis. Based on data from three recent oil and gas EISs in the RSFO, the analysis assumed that approximately 84% of the new wells would be vertical/directional wells, and 16% would be horizontal wells. The success (completion) rate for new wells was assumed to be 85% for conventional wells and 95% for CBNG wells, based on recent experience as observed by the RSFO petroleum staff.

Table N-1 summarizes the oil and gas well drilling and completion costs used in the analysis. Estimates of per well drilling and completion costs for vertical/directional wells were based on data provided by industry for the Wyoming Greater Sage-Grouse Land Use Plan Amendments/EIS and validated by RSFO petroleum staff for this RMP/EIS. Estimates for horizontal well costs were provided by RSFO petroleum staff. Estimates for CBNG well costs were provided by BLM district office staff for the Wyoming Greater Sage-Grouse Land Use Plan Amendments/EIS and validated by RSFO petroleum staff for this RMP/EIS.

**Table N-1. Estimated Oil and Gas Costs Per Well in the Rock Springs Field Office (millions of 2014 dollars)**

| -- | Conventional Drilling | Conventional Completion | Conventional Total | CBNG Drilling | CBNG Completion | CBNG Total |
|---|---|---|---|---|---|---|
| Vertical/ Directional | $1.016 | $1.357 | $2.373 | N.A. | N.A. | N.A. |
| Horizontal | $5.500 | $4.500 | $10.000 | N.A. | N.A. | N.A. |
| CBNG | N.A. | N.A. | N.A. | $0.740 | $0.185 | $0.925 |

The percent of total well costs that were spent within the socioeconomic study area was estimated to be 71.4% for conventional well drilling, 74.6% for conventional well completion,[4] 83.1% for CBNG drilling, and 53.5% for CBNG completion. The percentages for the conventional well estimates were developed from Authority for Expenditure (AFE) data for directional wells in the study area and EIA estimates for horizontal wells. The percentages for the CBNG wells were based on a previous analysis conducted for the Wyoming Greater Sage-Grouse Land Use Plan Amendments/EIS.

The local spending figure (i.e., direct impact) per well was parsed into various industrial sectors of the IMPLAN model based on breakdowns of the different types of costs for drilling and completion (each addressed separately) taken from various sources – mainly AFEs provided by industry and EIA estimates. The expenditure data was disaggregated across the following 14 IMPLAN sectors. Following standard regional economic analysis practices, expenditures in the wholesale trade sector were "margined" (reduced to account for the cost of goods from outside the study area).[5]

[4] *These figures are for a "composite well" as defined for analysis purposes. The cost structure of a composite well is weighted by the expected ratio between vertical/directional wells and horizontal wells, as noted in the previous paragraph.*

[5] *Margin represents sales receipts less the cost of the goods sold.*

| Number | Sector Name |
|---|---|
| 37 | Drilling Oil and Gas Wells |
| 38 | Support Activities for Oil and Gas Operations |
| 54 | Power and Communication Structures |
| 56 | Highways and Streets |
| 395 | Wholesale Trade (margin of 17.3%) |
| 411 | Truck Transportation |
| 427 | Wired Telecommunications Carriers |
| 438 | Insurance |
| 445 | Commercial and Industrial Machinery and Equipment Rental and Leasing |
| 447 | Legal Services |
| 448 | Accounting |
| 449 | Architectural, Engineering, and Related Services |
| 471 | Waste Management Remediation Services |
| HH | Households (Contract Labor) |

The IMPLAN model provided estimates of direct, indirect, and induced output, employment, and labor earnings. Induced impacts were reduced by 60% for sectors 37 and 38 to account for non-local workers involved with drilling and completion of oil and gas wells in Wyoming. This estimate was based on information provided by industry for previous oil and gas economic impact analyses in Wyoming and is consistent with Wyoming Department of Employment data.

Once the economic impacts per well were estimated for drilling and for completion, those figures were multiplied by the total number of wells drilled or completed. The resulting figures were then summed to yield the total impacts of the development stage by year.

## Production Impacts

The analyses for production utilized the oil and gas production volumes by year from the RFD scenario. The RFD provides projected production volumes for all wells. These volumes were adjusted to reflect production for only Bureau-managed wells by multiplying the all wells production by the ratio between Bureau-managed wells drilled and all wells drilled.

The production volume data was then multiplied by price estimates to estimate total annual sales value revenue streams for oil and gas production. The market prices for oil and gas were based on EIA 2016–2031 oil and gas price projections for the Dakotas/Rocky Mountain Region, using the average of the price projections for all those years, and expressed in 2014 dollars. These revenue streams were then entered into the IMPLAN model, Sector 20, Natural Gas and Crude Production, to estimate the total economic impacts from production.

Per unit ad valorem and severance tax revenues estimates were developed from per unit tax revenue rates from the Wyoming Department of Revenue's 2015 Annual Report. These estimated rates were applied to the forecasted market sales values, with the assumption that the Wyoming tax structure will remain constant over the analysis period. The estimates for Federal Mineral Royalties were based on the current total royalty rate of 12.5% of market value. Wyoming's share amounts to 6% of the market value; the Federal Government retains the remainder. Royalties do not include bonus bids (a one-time additional revenue source for some leases) or rents to the federal government, which are a very small revenue stream. Table N-2 summarizes the prices and revenue rate estimates used in the analysis.

**Table N-2. Prices and Tax Revenue Estimates for Oil and Gas Production**

| -- | Oil ($/BBL) | Gas ($/MCF) |
|---|---|---|
| Market Price (1) | $70.85 | $3.69 |
| Ad Valorem Tax (2) | $4.29 | $0.172 |
| Severance Tax (2) | $3.88 | $0.156 |
| Federal Mineral Royalties, Federal Share | $4.81 | $0.250 |
| Federal Mineral Royalties, Wyoming Share (3) | $4.05 | $0.211 |

BBL: Barrel; MCF: Million Cubic Feet
(1) Average EIA Dakota/Rocky Mountain Region 2016–2031 forecast (adjusted to 2014$)
(2) Wyoming Department of Revenue 2015 Annual Report adjusted to market prices
(3) Assumes Wyoming's share is 6% of market value

## N.2.2 Coal

### Introduction

There is only one phase of economic activity for coal – the production phase. There is no development phase equivalent to the drilling and completion activities in the oil and gas industry.

The coal production economic analysis involved two major steps:

- Estimating the amounts of production on BLM-administered coal in the planning area under each management alternative.
- Estimating the economic impacts based on the value of production.

Average production from BLM-administered coal from 2007–2015 was used as the estimate of future production. This period showed variations in production from year to year. Variations are also likely in the future, so the average value was used. The BLM identified all federal coal leases in the RSFO and obtained production volumes (and sales values and royalties) for those leases for the applicable years from the U.S. Department of the Interior's Office of Natural Resources Revenue (ONRR). The RSFO minerals specialists determined that the current availability of coal on federal minerals could support similar rates of production through the planning period. Furthermore, the BLM determined that there are no differences between the management alternatives that would result in production volume differences that could be reliably quantified.

In the RSFO, coal is produced from both surface and underground sources. These sources have different cost structures and tax and royalty rates. Future production from each source was based on the average surface to underground production ratio for 2013–2015, applied to the estimate of future production described above.

The estimated production volumes were then multiplied by the price of coal, resulting in an estimate of the total annual sales value for coal production. The estimated future price was based on EIA 2016–2031 reference case projections for western Wyoming minemouth prices, using the average of the price projections for all those years, which was $40.24, expressed in 2014 dollars. Some other sources provided higher prices, but these appeared to be prices for delivered coal, which is not the appropriate price for the impact analysis for the socioeconomic study area.

### IMPLAN Model Modifications

The IMPLAN modeling system utilizes national production coefficients. To better reflect local production practices, the coal sector (IMPLAN sector 22) was modified, using the following protocol. Total output for

the coal sector was based on mine-level production quantities from the Wyoming State Inspector of Mines and price estimates for southwest Wyoming coal from private sector data sources. Employment estimates were based on Wyoming State Inspector of Mines mine level-data. Earnings were based on BLS data for Wyoming on covered employment. These estimates were adjusted to account for employer paid benefits using BEA data. Intermediate payments were scaled based on mine-level private sector data.

### Coal Production Impacts

The coal sales values were entered into the IMPLAN model, Sector 22, Coal Mining, to estimate the total economic impact from coal production. Public revenues were estimated by multiplying the sales value by the current federal mineral royalty rates (federal and state shares) and current ad valorem and severance tax rates. The ad valorem and severance tax analysis was adjusted by the Wyoming Department of Revenue assessed to gross ratios for coal production in Wyoming.

In Chapter 4, the economic impacts of coal production are reported together with the impacts of trona production. Adding these results together was necessary in order to avoid potential disclosure of proprietary information due to the small number of operators in each industry.

## N.2.3 Trona (Soda Ash)

### Introduction

There is only one phase of economic activity for trona – the production phase. There is no development phase equivalent to the development and completion activities in the oil and gas industry. However, there are two steps in production that are both encompassed in the analysis. First, trona is mined. Second, the vast majority of the trona ore is processed into soda ash, which is then sold and shipped to other industries. Some additional trona derivative products are also created and sold. These include purge liquor, sulfide, sodium bi-carbonate, and sodium sesquicarbonate. A small amount of trona ore is also sold separately. The value of these products is not included in the economic impact analysis. Together, they represent from 7.4 to 7.9% of the total sales value of all trona-derived products from Sweetwater County according to data from the ONRR.

All trona production in Wyoming occurs on federal and non-federal minerals in the Known Sodium Leasing Area (KSLA), which is entirely located within Sweetwater County. Not all of the federal trona resource in the KSLA is managed by the RSFO; some is managed by the Kemmerer Field Office. The economic impact analysis for the RSFO RMP only addresses production from federal minerals in the RSFO. The BLM identified all federal trona leases in the RSFO and obtained production volumes (and sales values and royalties) for those leases for the applicable years from the ONRR.

Average soda ash production from BLM-administered trona from 2007–2014 was used as the estimate of future production. This period showed variations in production from year to year. Variations are also likely in the future, so the average value was used. The RSFO minerals specialists determined that the current availability of trona on federal minerals could support similar rates of production through the planning period. Furthermore, the BLM determined that there are no differences between the management alternatives that would result in production volume differences that could be reliably quantified.

The estimated soda ash production volume was then multiplied by the price of soda ash, resulting in an estimate of the total annual sales value for soda ash production. The 2014 Sweetwater County price of $133.91 per ton from the Wyoming Department of Revenue was used as the estimated future price. This assumes that soda ash prices will remain, on average, constant through the duration of the study period.

### IMPLAN Model Modifications

The IMPLAN modeling system utilizes national production coefficients. To better reflect local production practices and the trona and soda ash industry specifically, the Potash, Soda, and Borate Minerals (Sector 33) and Other Basic Inorganic Chemical Manufacturing (Sector 164) sectors were modified, as follows. Total output for the two sectors was based on state-level production quantities from the Wyoming Department of Revenue. Prices for trona and soda ash were also based on Wyoming Department of Revenue data. 2014 employment data for both sectors was based on Wyoming State Inspector of Mines data. Earnings for both sectors were based on BLS data for Wyoming on covered employment. These estimates were adjusted to account for employer-paid benefits using BEA data. Intermediate payments were scaled based on IMPLAN data for the respective sectors.

### Trona (Soda Ash) Production Impacts

The soda ash revenue was entered into the IMPLAN model, Sector 164, Other Basic Inorganic Chemical Manufacturing to estimate the total economic impact of soda ash production. The total economic impact of trona mining was estimated separately by entering trona mining revenue into the IMPLAN model, Sector 33, Potash, Soda, and Borate Minerals, after removing the linkage between Sector 164 and Sector 33 from the Sector 164 industry production account in the IMPLAN model. Removing the linkage eliminates double-counting the impacts from trona revenue.

## N.2.4 Livestock Grazing

### Introduction

The livestock grazing economic analysis involved three major steps:

- Estimating the amounts of forage utilized on BLM-administered lands in the planning area under each management alternative.
- Estimating the economic value of forage use.
- Estimating the economic impacts based on the value of production.

Each of these steps is described in detail below. There is only one "phase" of economic activity for livestock grazing – livestock production. There is no "development" phase equivalent to the drilling and completion activities in the oil and gas industry.

The analysis was based around cattle and sheep grazing, which were analyzed separately. Forage utilization for non-wild horses – a very small portion of total forage utilization – was excluded from the analysis. It was assumed that most forage utilization for horses occurs as support for ranching operations and thus is a cost of production. Therefore, forage utilization for horses is accounted for in the livestock operations budgets used in developing the value of production for marketable livestock. Further, there is no similar commodity value for horses (they are not sold for slaughter for meat as cattle and sheep are). Forage for wild horses is not included in the forage utilization estimates discussed below. The BLM allocates forage for wildlife and wild horses separately.

### Estimation of Forage Utilization

The economic impact estimates for livestock grazing were based on: a) the 10-year average (2006–2015) of billed animal unit months (AUM), and b) total authorized AUMs of forage use for cattle, sheep, and other livestock for the RSFO. One AUM is equal to the amount of forage consumed by a cow and calf during a 1-month grazing period. Billed forage use is the closest available proxy for actual forage use. Because billed use may exceed actual grazing use, the economic analyses may overstate the actual economic

impacts of grazing to some degree. Estimates were also prepared for total authorized forage use in order to indicate the maximum possible economic impact of grazing on BLM-administered land; however, billed use was considerably below authorized use for every year of the 2006–2015 period.

The total authorized AUMs are the same for Alternatives A and D. Total authorized AUMs are 6,202 less under Alternative B due to provisions of that management alternative (prohibition on grazing in certain allotments). Under Alternative C, total authorized AUMs are limited to the highest level of actual use (billed use) over the last 10 years (2009 – 2018). That figure is 160,387 AUMs, which is 142,881 less than the authorized AUMs under Alternatives A and D. Under the Proposed RMP authorized livestock use would be the same as Alternative D. Under Alternative D, total active AUMs would be 304,261. These active AUMs can be adjusted when monitoring demonstrates change is needed to meet the goals of the RMP and Wyoming Standards for Rangeland Health.

The billed use estimates did not vary between the alternatives. While forage utilization and billed use could vary somewhat under these alternatives (e.g., due to differences in treatment of voluntary relinquishment of permits or grazing preference), the differences between the alternatives could not be quantified for billed use. Also, while total authorized AUMs decrease in Alternatives B and C, total authorized AUMs are still greater than or equal to historical total billed use in the RSFO; therefore, the BLM believes that billed use would not be affected by the reduction in authorized AUMs under Alternatives B and C. Under the Proposed RMP billed use would remain the same as under Alternative D. AUMs would remain at current active levels so a reduction or change in billed use would not change.

## Estimation of the Economic Value of Forage Use

The value of grazing in a specific area can be estimated based on the grazing use of the area in AUMs as described above, and the value of an AUM. The direct value of production per AUM was estimated based on regional livestock production value data and ratios in the livestock economics literature. According to Workman (1986), it takes 16 AUMs to produce a marketable cow. Thus, the average value of an AUM can be estimated using data on the value of cattle production per bred cow and dividing by 16. A similar procedure can be used to estimate the value of an AUM used for sheep production, using 3.2 AUMs per ewe. In addition, a cow-calf operation adjustment is made by multiplying the value by 1.2 (National Agricultural Statistics Service 2015). This adjustment is made to convert from an animal unit basis to a cow-calf basis since billed AUMs do not count livestock under six months of age. In Wyoming, most livestock operators run cow-calf operations. The ewe-lamb operation adjustment is assumed to be the same.

The value per AUM for cattle was based on a 5-year average (2010–2014) of the annual value of production per bred cow estimates from the United States Department of Agriculture (USDA) Economic Research Service's (ERS) Commodity Cow-Calf Costs and Returns estimates for the Basin and Range portion of the United States. 2014 was latest year the ERS data was available. BLM used five years of data to avoid skewed values during the early years (2008–2009) of the Great Recession. The methodology and data for calculation of the average value of cattle production from one AUM of forage are shown in Table N-3. The IMPLAN inflator adjusts the nominal dollar values for value of production to constant 2014 dollars. The cow-calf adjustment factor converts generic AUMs to cow-calf AUMs. In Wyoming, most cattle operations are cow-calf operations.

The direct value of production for sheep was based on estimated gross receipts per ewe from the University of Wyoming's most recent (2014) Wyoming Range Sheep Budget (Feuz 2014). The methodology and data for this calculation are shown in Table N-4.

The figures for the value per AUM for cattle or sheep grazing were multiplied by the number of AUMs under each alternative. The result was the total economic value of livestock production, which was used as the direct impact input to the IMPLAN model.

**Table N-3. Value of an AUM for Cattle Production, Basin and Range Region**

| Year | Value of Production Per Bred Cow[1] | AUMs Per Cow[2] | Value of Production Per AUM | IMPLAN Inflator | Inflated Value of Production Per AUM* | Cow-Calf Adjustment[3] | Adjusted Value of Production per AUM |
|---|---|---|---|---|---|---|---|
| 2010 | $570.50 | 16 | $35.66 | 0.690 | $51.68 | 1.20 | $62.01 |
| 2011 | $648.59 | 16 | $40.54 | 0.720 | $56.30 | 1.20 | $67.56 |
| 2012 | $744.93 | 16 | $46.56 | 0.935 | $49.79 | 1.20 | $59.75 |
| 2013 | $780.50 | 16 | $48.78 | 0.985 | $49.52 | 1.20 | $59.43 |
| 2014 | $1,076.00 | 16 | $67.25 | 1.000 | $67.25 | 1.20 | $80.70 |
| **5-year Average** | | | | | | | **$65.89** |

[1] USDA ERS, Commodity Costs and Returns, data for Basin and Range region, cow-calf pair,http://www.ers.usda.gov/data-products/commodity-costs-and-returns.aspx.
[2] Workman 1986.
[3] National Agricultural Statistics Service 2015.
*Value times inflator.

**Table N-4. Value of an AUM for Sheep Production**

| Year | Value of Production Per Ewe[1] | AUMs Per Ewe (1/5)[2] | Value of Production Per AUM | IMPLAN Inflator | Inflated Value of Production Per AUM* | Ewe-Lamb Adjustment[3] | Adjusted Value of Production per AUM |
|---|---|---|---|---|---|---|---|
| 2014 | $148.76 | 3.2 | $46.49 | 1.000 | $46.49 | 1.20 | $55.79 |

[1] University of Wyoming, Wyoming Range Sheep Budget, 1,000 Ewes - Selling Lambs in Fall (Feuz 2014).
[2] Assumes five sheep = one cow.
[3] Assumed to be the same as Cow-Calf Adjustment.
*Value times inflator.

## IMPLAN Model Modifications

The value-added components of the All Other Crop Farming sector (sector 10) in IMPLAN were modified to better reflect hay production in the study area. The modifications were based on a grass hay budget for western Colorado from the Colorado State University (Sharp 2011).

## Livestock Production Impacts

The economic impacts of livestock grazing were estimated in IMPLAN using analysis-by-parts methodology. The total value of production from the steps described above was allocated to different IMPLAN sectors based on a 2014 cattle production budget from the University of Idaho (Painter and Rimbey 2014) and a University of Wyoming range sheep budget (Feuz 2014).

The value of production was disaggregated across 14 IMPLAN sectors. Following standard regional economic analysis practices, expenditures in wholesale and retail trade (food and beverage store) sectors were "margined" (reduced to account for the cost of goods from outside the study area).[6]

| Number | Sector Name |
|---|---|
| 2 | Grain Farming |
| 10 | All Other Crop Farming |
| 11 | Cattle Ranching and Farming |
| 14 | Animal Production, Except Cattle, Poultry, and Eggs |

[6] *Margin represents sales receipts less the cost of the goods sold.*

| | |
|---|---|
| 19 | Support Activities for Agriculture and Forestry |
| 63 | Maintenance and Repair Construction of Residential Structures |
| 395 | Wholesale Trade (margin of 17.3%) |
| 400 | Food and Beverage Stores (margin of 34.6%) |
| 411 | Truck Transportation |
| 433 | Monetary Authorities and Depository Credit Intermediation |
| 440 | Real Estate |
| 448 | Accounting, Tax Preparation, Bookkeeping |
| 459 | Veterinary Services |
| 507 | Commercial and Industrial Machinery and Equipment Repair |

## N.2.5 Recreation

### Introduction

The tables for the recreation economic analysis present two views of the economic effects of recreation. Economic impact measures only the effects of "new" income in the study area; in the case of recreation, economic impact is based on all spending of non-local residents on local recreation, and the spending by local residents that would be lost to other regions if the local BLM recreational opportunity did not exist (some spending by local residents would continue, using local substitute recreation opportunities). Economic contribution includes the effects of all expenditures made by local residents (roughly, individuals who live within the socioeconomic study area), as well as the role of spending from recreators from outside the study area. In other words, economic contribution is based on all spending of local residents on local recreation and all spending of non-local residents on local recreation. Economic impact is the measure used in the analyses above of oil and gas development and production, coal production, trona (soda ash) production, and livestock grazing. Local residents buy only a very small proportion of the total output of those industries, so a measure of economic contribution would be only slightly greater than the measure of economic impact. In the case of recreation, however, local residents make considerable recreation-related expenditures (gas, food, and so on while on local trips), so it is fair to include those expenditures in an analysis of the economic role of recreation. Put another way, expenditures by local and non-local recreationists alike help keep local businesses going.

### Estimation of Recreation Usage

Recreation visitation estimates for the RSFO were taken from the BLM's Recreation Management Information System (RMIS). Recreation usage data is expressed in "visits." A visit is defined as one individual who enters and recreates on BLM-administered land for an indeterminate period of time. A visit ends when that individual spends a night off the BLM unit. The fact that some visits are for a single day or less, and some are for multiple days, is accounted for in the approach to estimating the direct impacts (expenditures) of visitors, as discussed below. Table N-5 shows the total visits in the RSFO in recent years.

**Table N-5. Total Recreation Visits to the RSFO, 2011–2015**

| Fiscal Year | Visits |
|---|---|
| 2011 | 429,861 |
| 2012 | 426,439 |
| 2013 | 452,916 |
| 2014 | 518,082 |
| 2015 | 847,318 |
| Five-Year Average | 534,923 |
| Low Year Visits | 426,439 |

| Fiscal Year | Visits |
|---|---|
| High Year Visits | 847,318 |

Source: RMIS data

While visitation in the RSFO has increased in recent years, it is unknown if this trend will continue. Therefore, the BLM conducted two economic analyses, for high and low visitation scenarios. The low scenario assumes that visitation over the 2016–2031 study period would average out as the low year visits number (426,439) and the high visitation scenario assumes that visitation would average out to the high year visits number (847,318).

While the alternatives differ in terms of recreation management actions, there is no basis for reliably estimating how the management actions will affect recreation visitation numbers. In Alternative C, a new open play area would be added. There is no basis for confidently predicting the amount of visitation the new play area would draw. Therefore, the total low and high scenario visitation numbers for Alternative C is the same as for Alternative A; however, it is likely there would be some additional visitation and economic activity under Alternative C. Alternative D and the Proposed RMP retain the Killpecker Sand Dunes OHV play area and do not add a new open play area; therefore, it is likely that visitation and economic impacts of recreation in Alternative D and the Proposed RMP be the same as Alternative A. Although the total area managed as SRMA under Alternative D and the Proposed RMP is 45-46% of Alternative A, it is anticipated that visitation and economic impacts of recreation would be similar to Alternative A.

## Estimation of the Direct Economic Impacts of Recreation

Due to the lack of recreation expenditure data for the RSFO, data from the National Visitor Use Monitoring (NVUM) program of the U.S. Forest Service (USFS) were used to estimate the economic effects of recreation for the RSFO. The NVUM program provides a robust data source that is widely used for recreation economic impact analysis for areas besides USFS-managed lands. This is done by identifying national forest units that are reasonably analogous to another recreation management area and applying the recreational expenditure data from NVUM to other area-specific recreation use data or estimates.

The USFS unit deemed most analogous to the RSFO in terms of recreation use was the Ashley National Forest, which partially overlaps the southern portion of the RSFO. The BLM used recreation market segment data and expenditure profiles for the Ashley National Forest from the latest iteration, Round 3, of the NVUM surveys (White 2016a). However, while the BLM used several components of the NVUM data for the Ashley National Forest, the NVUM recreation "trip type" data for the national forest were replaced by analogous estimates for the RSFO developed by a RSFO recreation specialist. This is because the RSFO tends to get more non-local visitation than the Ashley National Forest. The Flaming Gorge Reservoir, located on the national forest and not part of the RSFO, sees significant local use, while the "brand" of recreation on the RSFO is more remote, which attracts a higher proportion of non-local visitors. Also, due to the great distances involved in traveling to recreation sites in the RSFO, local visitors were considered to be people who live in the area and could be traveling to a site from as far away as 75 miles.

The NVUM recreation segment and expenditure data were applied to the RSFO as described below. All NVUM expenditures as applied to the RSFO were assumed to be local expenditures (within the socioeconomic study area), based on how the NVUM data was collected (surveys asked interviewees for their expenses within 50 miles of the recreation site).

- The allocation of RSFO visitation to two overarching NVUM "broad visit activity" types was assumed to equal the allocation for the Ashley National Forest of 39.6% to wildlife-related

recreation and 60.4% to all other recreation. These values were applied to the total low and high scenario visit numbers.[7]

- A RSFO recreation specialist estimated, based on familiarity with visitation patterns in the field office, the percentage of the visits to each RSFO recreation site in RMIS that fell into each of seven different recreation "trip types" utilized in the NVUM. This evaluation was done for FY2013 visitation, which was deemed sufficiently representative for the overall analysis. When summed and divided into the total visitation, the overall trip type percentages were as shown in Table N-6.
- The trip type percentages were applied to the number of wildlife-related visits and the number of other recreation visits under each of the two visitation scenarios.
- The estimates of visits by trip type for each broad visit activity type were then converted to party visits based on average party size data for each trip type from the NVUM.
- Total party visits were multiplied by party spending figures from the NVUM for each broad visit activity type and trip type to estimate direct spending by visitors. The party spending figures from NVUM were the averages for a "low-expenditure forest," which is the forest expenditure profile applicable to the Ashley National Forest. The NVUM researchers have determined that expenditure figures based on averages across multiple forests are more reliable than individual forest expenditures.
- Total direct spending across all broad visit activity types and visit types was summed to yield the total direct economic contribution estimates.
- Total direct spending was adjusted (reduced) for the local trip segments to reflect estimated out-of-area substitution, based on NVUM national data (White and Stynes 2010). The remaining direct spending across all segments was then summed to yield the total direct economic impact estimates.

**Table N-6. Overall Trip Type Percentages**

| Non-Local Visitor | | | Local Visitor | | | Non-Primary Visit* |
|---|---|---|---|---|---|---|
| Day | Overnight on BLM | Overnight off BLM | Day | Overnight on BLM | Overnight off BLM | |
| 39.7% | 18.3% | 4.6% | 22.9% | 8.8% | 1.2% | 4.5% |

*E.g., just passing by on I-80.
Source: Review of FY2013 BLM RMIS data by RSFO recreation specialist

Attachment 1 to this appendix illustrates calculation of direct economic contribution and direct economic impact using the procedure above.

The BLM acknowledges that certain recreation activities on BLM-administered land may generate visitor expenditure patterns that differ from the NVUM expenditure values. However, the BLM believes that in total – averaged across the many different recreation activities that take place in the RSFO – the per visit expenditure values from the NVUM are reasonably close to the per visit expenditures that occur in the socioeconomic study area due to recreation on BLM-administered land in the RSFO.

One recreation activity that has received considerable attention in terms of its economic impact is OHV riding. Some OHV advocacy groups maintain that OHV riders have different spending profiles from other recreationists and claim that OHV use contributes more to the local recreation economy. However, expenditure values from the literature addressing OHV riding are sometimes not comparable to each other,

[7] *Note: The use of broad visit activity types is new to NVUM Round 3. It was not used by the Forest Service in the NVUM Round 2 data used by the BLM for the Wyoming Greater Sage-Grouse Proposed Land Use Plan Amendment and Final Environmental Impact Statement, dated May 2015. Thus, the expenditure figures by segment differ between this analysis and the Greater Sage-Grouse analysis.*

and the values for the most relevant OHV studies for this RMP/EIS are not comparable to the methodology used in the NVUM. For instance, OHV recreationist expenditures have been estimated in studies in Wyoming by Nagler et al. (2013) and Foulke et al. (2006), and in Idaho by Anderson and Taylor (2014). Based on survey data, Nagler et al. (2013) report that average trip expenditures per person per day for OHV trips in Wyoming in 2012 were $40.54 for Wyoming residents and $60.61 for non-residents. NVUM data, on the other hand, are by design focused on identifying variations in spending for the seven different trip types noted above. While the NVUM program gathers data on activity types, this has never been a focus of the program. In addition, NVUM data are gathered and presented on the basis of spending for each party (one or more people) for each trip, not spending per person per day. Nonetheless, NVUM researchers have looked at spending across different types of activities identified by the survey respondents as the primary purpose of the trip. Stynes and White (2006) report that for trips where OHV use is the primary activity, expenditures per party per trip for National Forests with an average expenditure profile were, in 2003 dollars, $60 for non-local day trips, $162 for non-local overnight trips (one or more nights), $38 for local day trips, and $97 for local overnight trips. These data reflect parties that are mostly comprised of more than one person, and the overnight trips typically represent more than one day of activity. These figures cannot be readily converted and compared to the expenditure basis used in the OHV-specific studies cited above. However, it should be noted that these figures are not among the highest figures for the various activities in the NVUM data. The corresponding figures across all activity types for the same set of average expenditure forests were $52 for non-local day trips, $208 for non-local overnight trips, $33 for local day trips, and $121 for local overnight trips. In short, the expenditures for OHV trips are slightly higher than the all-activity types average for day trips, and lower for overnight trips.

For this RMP/EIS, the BLM has chosen an expenditure data source (NVUM) and methodology that provide a consistent analysis across all activity types. This approach is also consistent with most BLM RMP/EISs. Where appropriate, impacts of management actions on different types of recreation are addressed qualitatively.

## IMPLAN Model Modifications

No modifications were made to the IMPLAN model for recreation-related sectors. The coefficients used by the model for these sectors are generally considered reliable for Wyoming.

## Recreation Impacts

As noted earlier, the economic importance of recreation in the RSFO was considered both in terms of "economic contribution" which is a descriptive analysis that simply tracks the gross economic activity as the dollars cycle through the region's economy and "economic impact" which estimates the net economic activity that would be lost from the local economy without the resource. The total direct economic contributions or impacts that were developed as described above were used in the IMPLAN model to estimate the indirect, induced, and total economic effects of recreation.

The total direct economic contributions or impacts were entered into the IMPLAN model using distributions of expenditures by trip type to different recreation-affected industries. These distributions were developed by the USFS from the NVUM surveys. Specifically, the direct recreation spending was disaggregated across the following 10 IMPLAN sectors based on the spending distributions from NVUM (White 2016b). Following standard regional economic analysis practices, expenditures in retail trade sectors were "margined" (reduced to account for the cost of goods from outside the study area).[8]

| Number | Sector Name |
|---|---|
| 400 | Retail – Food and Beverages (margin of 34.6%) |
| 402 | Retail – Gasoline Stations (margin of 11.6%) |

[8] *Margin represents sales receipts less the cost of the goods sold.*

| | |
|---|---|
| 404 | Retail – Sporting Goods, Hobby, Book, Music (margin of 41.7%) |
| 406 | Retail – Miscellaneous (margin of 47.2%) |
| 442 | Automotive Equipment Rental and Leasing |
| 493 | Museums, Historical Sites, Zoos, and Parks |
| 496 | Other Amusement and Recreation Industries |
| 499 | Hotels and Motels |
| 500 | Other Accommodations |
| 501 | Full-Service Restaurants |

### N.2.6 Nonmarket Values

The analysis of nonmarket values for this RMP/EIS was partly quantitative and partly qualitative. Nonmarket values (consumer surplus value) associated with recreation were estimated quantitatively at a high level using a benefits transfer methodology described in Chapter 4 of the RMP/EIS. Total visitor days for the RSFO were taken directly from RMIS. Other nonmarket values and variations in nonmarket values across the alternatives were discussed qualitatively in Chapter 4.

## N.3 SUMMARY OF THE QUANTITATIVE ECONOMIC IMPACT ANALYSIS

This section presents multiple tables that allow for easy comparison of the quantitative economic impact results across the alternatives.

**Table N-7. Total Economic Output by Program by Alternative (1,000s of 2014$)**

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| **Annual Impact, 2016** | | | | | |
| Livestock Grazing (Billed Use)[1] | $13,040 | $13,040 | $13,040 | $13,040 | $13,040 |
| Oil and Gas Development[1] | $695,742 | $185,507 | $715,565 | $689,474 | $185,507–$689,474 |
| Oil and Gas Production[2] | $539,946 | $143,052 | $555,061 | $534,599 | $143,052–$532,599 |
| Coal and Soda Ash Production[1,3] | $449,698 | $449,698 | $449,698 | $449,698 | $449,698 |
| Recreation (High Visitation)[1] | $36,065 | $36,065 | $36,065 | $36,065 | $36,065 |
| Total BLM-Supported | $1,734,491 | $827,362 | $1,769,429 | $1,722,876 | $827,362–$1,722,876 |
| **Net Present Value, 2016–2031 (3% Discount Rate)** | | | | | |
| Livestock Grazing (Billed Use)[1] | $163,791 | $163,791 | $163,791 | $163,791 | $163,791 |
| Oil and Gas Development[1] | $8,739,289 | $2,330,173 | $8,988,281 | $8,660,550 | $2,330,173–$8,660,550 |
| Oil and Gas Production[1,3] | $14,940,326 | $3,960,300 | $15,359,591 | $14,793,106 | $3,960,300–$14,793,106 |
| Coal and Soda Ash Production[1,3] | $5,648,698 | $5,648,698 | $5,648,698 | $5,648,698 | $5,648,698 |
| Recreation (High Visitation)[1] | $453,010 | $453,010 | $453,010 | $453,010 | $453,010 |

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| Total BLM-Supported | $29,945,115 | $12,555,972 | $30,613,372 | $29,719,155 | $12,555,972–$29,719,155 |
| **Net Present Value, 2016–2031 (7% Discount Rate)** | | | | | |
| Livestock Grazing (Billed Use)[1] | $123,180 | $123,180 | $123,180 | $123,180 | $123,180 |
| Oil and Gas Development[1] | $6,572,432 | $1,752,420 | $6,759,688 | $6,513,216 | $1,752,420–$6,513,216 |
| Oil and Gas Production[4] | $10,465,623 | $2,774,094 | $10,759,277 | $10,362,469 | $2,774,094–$10,362,469 |
| Coal and Soda Ash Production[1,3] | $4,248,136 | $4,248,136 | $4,248,136 | $4,248,136 | $4,248,136 |
| Recreation (High Visitation)[1] | $340,689 | $340,689 | $340,689 | $340,689 | $340,689 |
| Total BLM-Supported | $21,750,061 | $9,238,518 | $22,230,970 | $21,587,689 | $9,238,518–$21,587,689 |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
[4] Incorporates annual increases in production.

## Table N-8. Total Economic Output, Alternative Scenarios for Grazing and Recreation, by Alternative (1,000s of 2014$)

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| **Annual Impact, 2016** | | | | | |
| Livestock Grazing (Total Authorized Use)[1] | $25,825 | $25,251 | $13,658 | $25,825 | $25,251–25,825 |
| Recreation (Economic Impact – Low Visitation)[1] | $18,151 | $18,151 | $18,151 | $18,151 | $18,151 |
| Recreation (Economic Contribution – Low Visitation)[1] | $21,465 | $21,465 | $21,465 | $21,465 | $21,465 |
| Recreation (Economic Contribution – High Visitation)[1] | $42,573 | $42,573 | $42,573 | $42,573 | $42,573 |
| **Net Present Value, 2016–2031 (3% Discount Rate)** | | | | | |
| Livestock Grazing (Total Authorized Use)[1] | $324,394 | $317,179 | $171,558 | $324,394 | $317,179–$324,394 |
| Recreation (Economic Impact – Low Visitation)[1] | $227,991 | $227,991 | $227,991 | $227,991 | $227,991 |
| Recreation (Economic Contribution – Low Visitation)[1] | $269,621 | $269,621 | $269,621 | $269,621 | $269,621 |
| Recreation (Economic Contribution – High Visitation)[1] | $534,761 | $534,761 | $534,761 | $534,761 | $534,761 |
| **Net Present Value, 2016–2031 (7% Discount Rate)** | | | | | |
| Livestock Grazing (Total Authorized Use)[1] | $243,962 | $238,536 | $129,021 | $243,962 | $238,536–$243,962 |
| Recreation (Economic Impact – Low Visitation)[1] | $171,462 | $171,462 | $171,462 | $171,462 | $171,462 |
| Recreation (Economic Contribution – Low Visitation)[1] | $202,770 | $202,770 | $202,770 | $202,770 | $202,770 |

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| Recreation (Economic Contribution – High Visitation)[1] | $402,170 | $402,170 | $402,170 | $402,170 | $402,170 |

[1] Assumes constant annual activity level (based on available data).

## Table N-9. Total Labor Earnings by Program by Alternative (1,000s of 2014$)

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| **Annual Impact, 2016** | | | | | |
| Livestock Grazing (Billed Use)[1] | $4,471 | $4,471 | $4,471 | $4,471 | $4,471 |
| Oil and Gas Development[1] | $244,953 | $65,310 | $251,931 | $242,746 | $65,310–$242,746 |
| Oil and Gas Production[2] | $43,369 | $11,490 | $44,583 | $42,940 | $11,490–$42,940 |
| Coal and Soda Ash Production[1,3] | $78,720 | $78,720 | $78,720 | $78,720 | $78,720 |
| Recreation (High Visitation)[1] | $7,824 | $7,824 | $7,824 | $7,824 | $7,824 |
| Total BLM-Supported | $379,338 | $167,816 | $387,529 | $376,701 | $167,816–$376,701 |
| **Net Present Value, 2016–2031 (3% Discount Rate)** | | | | | |
| Livestock Grazing (Billed Use)[1] | $56,161 | $56,161 | $56,161 | $56,161 | $56,161 |
| Oil and Gas Development[1] | $3,076,884 | $820,368 | $3,164,534 | $3,049,152 | $820,368–$3,049,162 |
| Oil and Gas Production[4] | $1,200,026 | $318,096 | $1,233,701 | $1,188,201 | $318,096–$1,188,201 |
| Coal and Soda Ash Production[1,3] | $988,809 | $988,809 | $988,809 | $988,809 | $988,809 |
| Recreation (High Visitation)[1] | $98,284 | $98,284 | $98,284 | $98,284 | $98,284 |
| Total BLM-Supported | $5,420,164 | $2,281,719 | $5,541,489 | $5,380,607 | $2,281,719–$5,380,607 |
| **Net Present Value, 2016–2031 (7% Discount Rate)** | | | | | |
| Livestock Grazing (Billed Use)[1] | $42,236 | $42,236 | $42,236 | $42,236 | $42,236 |
| Oil and Gas Development[1] | $2,313,988 | $616,962 | $2,379,906 | $2,293,132 | $616,962–$2,293,132 |
| Oil and Gas Production[4] | $840,612 | $222,819 | $864,199 | $832,326 | $222,829–$832,326 |
| Coal and Soda Ash Production[1,3] | $743,639 | $743,639 | $743,639 | $743,639 | $743,639 |
| Recreation (High Visitation)[1] | $73,915 | $73,915 | $73,915 | $73,915 | $72,915 |
| Total BLM-Supported | $4,014,391 | $1,699,571 | $4,103,895 | $3,985,249 | $1,699,571–$3,985,249 |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
[4] Incorporates annual increases in production.

## Table N-10. Total Labor Earnings, Alternative Scenarios for Grazing and Recreation, by Alternative (1,000s of 2014$)

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| **Annual Impact, 2016** | | | | | |
| Livestock Grazing (Total Permitted Use)[1] | $9,083 | $8,895 | $4,803 | $9,083 | $8,895–$9,083 |
| Recreation (Economic Impact – Low Visitation)[1] | $3,938 | $3,938 | $3,938 | $3,938 | $3,938 |
| Recreation (Economic Contribution – Low Visitation)[1] | $4,679 | $4,679 | $4,679 | $4,679 | $4,679 |
| Recreation (Economic Contribution – High Visitation)[1] | $9,082 | $9,082 | $9,082 | $9,082 | $9,082 |
| **Net Present Value, 2016–2031 (3% Discount Rate)** | | | | | |
| Livestock Grazing (Total Permitted Use)[1] | $114,089 | $111,725 | $60,337 | $114,089 | $111,725 |
| Recreation (Economic Impact – Low Visitation)[1] | $49,465 | $49,465 | $49,465 | $49,465 | $49,465 |
| Recreation (Economic Contribution – Low Visitation)[1] | $58,776 | $58,776 | $58,776 | $58,776 | $58,776 |
| Recreation (Economic Contribution – High Visitation)[1] | $114,085 | $114,085 | $114,085 | $114,085 | $114,085 |
| **Net Present Value, 2016–2031 (7% Discount Rate)** | | | | | |
| Livestock Grazing (Total Permitted Use)[1] | $85,802 | $84,024 | $45,377 | $85,802 | $85,024–$85,802 |
| Recreation (Economic Impact – Low Visitation)[1] | $37,200 | $37,200 | $37,200 | $37,200 | $37,200 |
| Recreation (Economic Contribution – Low Visitation)[1] | $44,203 | $44,203 | $44,203 | $44,203 | $44,203 |
| Recreation (Economic Contribution – High Visitation)[1] | $85,799 | $85,799 | $85,799 | $85,799 | $85,799 |

[1] Assumes constant annual activity level (based on available data).

## Table N-11. Total Employment by Program by Alternative

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| **Annual Impact, 2016** | | | | | |
| Livestock Grazing (Billed Use)[1] | 133 | 133 | 133 | 133 | 133 |
| Oil and Gas Development[1] | 3,436 | 917 | 3,534 | 3,405 | 917–3,405 |
| Oil and Gas Production[2] | 545 | 144 | 561 | 540 | 144–540 |
| Coal and Soda Ash Production[1,3] | 997 | 997 | 997 | 997 | 997 |
| Recreation (High Visitation)[1] | 324 | 324 | 324 | 324 | 324 |
| Total BLM-Supported | 5,435 | 2,515 | 5,549 | 5,399 | 2,515–5,399 |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators. Net present value is not applicable for employment.

## Table N-12. Total Employment, Alternative Scenarios for Grazing and Recreation, by Alternative

| -- | Alt. A | Alt. B | Alt. C | Alt. D | Proposed RMP |
|---|---|---|---|---|---|
| **Annual Impact, 2016** | | | | | |
| Livestock Grazing (Total Permitted Use)[1] | 273 | 268 | 145 | 273 | 268–273 |
| Recreation (Economic Impact – Low Visitation)[1] | 163 | 163 | 163 | 163 | 163 |
| Recreation (Economic Contribution – Low Visitation)[1] | 194 | 194 | 194 | 194 | 194 |
| Recreation (Economic Contribution – High Visitation)[1] | 373 | 373 | 373 | 373 | 373 |

[1] Assumes constant annual activity level (based on available data). Net present value is not applicable for employment.

# N.4 QUANTIFIED ECONOMIC IMPACTS

This section presents multiple tables that summarize the economic and fiscal impacts for each alternative.

**Table N-13. Total Annual Impacts by Program, 2016, Alternative A (1,000s of 2014$)**

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $561,074 | $450,660 | $283,578 | $29,279 | $1,331,685 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Total Economic Output | $13,040 | $695,742 | $539,946 | $449,698 | $36,065 | $1,734,491 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Total Labor Earnings | $4,471 | $244,953 | $43,369 | $78,720 | $7,824 | $379,338 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Jobs | 133 | 3,436 | 545 | 997 | 324 | 5,435 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Ad Valorem Taxes | N.A. | N.A. | $23,069 | $9,271 | N.A. | $32,340 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Severance Taxes | N.A. | N.A. | $20,846 | $6,941 | N.A. | $27,787 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FMR (Federal Share) | N.A. | N.A. | $30,589 | $12,104 | N.A. | $42,693 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FMR (WY Share) | N.A. | N.A. | $25,744 | $10,187 | N.A. | $35,931 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-14. Net Present Value (3% Discount Rate) by Program, 2016–2031, Alternative A (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $7,047,714 | $12,469,766 | $3,562,057 | $367,775 | $23,536,426 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Total Economic Output | $163,791 | $8,739,289 | $14,940,326 | $5,648,698 | $453,010 | $29,945,115 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Total Labor Earnings | $56,161 | $3,076,884 | $1,200,026 | $988,809 | $98,284 | $5,420,164 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Average Jobs Per Year | 133 | 3,436 | 1,267 | 997 | 324 | 6,157 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Ad Valorem Taxes | N.A. | N.A. | $637,678 | $116,457 | N.A. | $754,135 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Severance Taxes | N.A. | N.A. | $576,215 | $87,183 | N.A. | $663,398 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FMR (Federal Share) | N.A. | N.A. | $846,385 | $152,042 | N.A. | $998,427 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FMR (WY Share) | N.A. | N.A. | $712,335 | $127,962 | N.A. | $840,297 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-15. Net Present Value (7% Discount Rate) by Program, 2016–2031, Alternative A (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $5,300,274 | $8,735,008 | $2,678,866 | $276,587 | $17,057,754 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Total Economic Output | $123,180 | $6,572,432 | $10,465,623 | $4,248,136 | $340,689 | $21,750,061 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Total Labor Earnings | $42,236 | $2,313,988 | $840,612 | $743,639 | $73,915 | $4,014,391 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Average Jobs Per Year | 133 | 3,436 | 1,267 | 997 | 324 | 6,157 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Ad Valorem Taxes | N.A. | N.A. | $446,735 | $87,582 | N.A. | $534,317 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Severance Taxes | N.A. | N.A. | $403,676 | $65,567 | N.A. | $469,243 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FMR (Federal Share) | N.A. | N.A. | $592,889 | $114,344 | N.A. | $707,233 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FMR (WY Share) | N.A. | N.A. | $498,987 | $96,234 | N.A. | $595,221 |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-16. Total Annual Impacts by Program, 2016, Alternative B (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $149,581 | $119,397 | $283,578 | $29,279 | $588,929 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -55.8% |
| Total Economic Output | $13,040 | $185,507 | $143,052 | $449,698 | $36,065 | $827,362 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -52.3% |
| Total Labor Earnings | $4,471 | $65,310 | $11,490 | $78,720 | $7,824 | $167,816 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -55.8% |
| Jobs | 133 | 917 | 144 | 997 | 324 | 2,515 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -53.7% |
| Ad Valorem Taxes | N.A. | N.A. | $6,112 | $9,271 | N.A. | $15,383 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -52.4% |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Severance Taxes | N.A. | N.A. | $5,523 | $6,941 | N.A. | $12,464 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -55.1% |
| FMR (Federal Share) | N.A. | N.A. | $8,104 | $12,104 | N.A. | $20,208 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -52.7% |
| FMR (WY Share) | N.A. | N.A. | $6,821 | $10,187 | N.A. | $17,008 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -52.7% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-17. Net Present Value (3% Discount Rate) by Program, 2016–2031, Alternative B (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $1,878,902 | $3,305,418 | $3,562,057 | $367,775 | $9,203,266 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -60.9% |
| Total Economic Output | $163,791 | $2,330,173 | $3,960,300 | $5,648,698 | $453,010 | $12,555,972 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -58.1% |
| Total Labor Earnings | $56,161 | $820,368 | $318,096 | $988,809 | $98,284 | $2,281,719 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -57.9% |
| Average Jobs Per Year | 133 | 917 | 336 | 997 | 324.0 | 2,707 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -56.0% |
| Ad Valorem Taxes | N.A. | N.A. | $169,019 | $116,457 | N.A. | $285,476 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -62.1% |
| Severance Taxes | N.A. | N.A. | $152,728 | $87,183 | N.A. | $239,911 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -63.8% |
| FMR (Federal Share) | N.A. | N.A. | $224,355 | $152,042 | N.A. | $376,397 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -62.3% |
| FMR (WY Share) | N.A. | N.A. | $188,822 | $127,962 | N.A. | $316,784 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -62.3% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-18. Net Present Value (7% Discount Rate) by Program, 2016–2031, Alternative B (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $1,413,039 | $2,315,364 | $2,678,866 | $276,587 | $6,750,876 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -60.4% |
| Total Economic Output | $123,180 | $1,752,420 | $2,774,094 | $4,248,136 | $340,689 | $9,238,518 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -57.5% |
| Total Labor Earnings | $42,236 | $616,962 | $222,819 | $743,639 | $73,915 | $1,699,571 |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | 0.0% | -57.7% |
| Average Jobs Per Year | 133 | 917 | 336 | 997 | 324.0 | 2,707 |
| % Difference from Alt. A | N.A. | -73.3% | -73.5% | 0.0% | 0.0% | -56.0% |
| Ad Valorem Taxes | N.A. | N.A. | $118,406 | $87,582 | N.A. | $205,988 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -61.4% |
| Severance Taxes | N.A. | N.A. | $106,993 | $65,567 | N.A. | $172,560 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -63.2% |
| FMR (Federal Share) | N.A. | N.A. | $157,155 | $114,344 | N.A. | $271,499 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -61.6% |
| FMR (WY Share) | N.A. | N.A. | $132,265 | $96,234 | N.A. | $228,499 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% | 0.0% | N.A. | -61.6% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-19. Total Annual Impacts by Program, 2016, Alternative C (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $577,050 | $463,275 | $283,578 | $29,279 | $1,360,276 |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.1% |
| Total Economic Output | $13,040 | $715,565 | $555,061 | $449,698 | $36,065 | $1,769,429 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.0% |
| Total Labor Earnings | $4,471 | $251,931 | $44,583 | $78,720 | $7,824 | $387,529 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.2% |
| Jobs | 133 | 3,534 | 561 | 997 | 324 | 5,549 |
| % Difference from Alt. A | 0.0% | 2.9% | 2.9% | 0.0% | 0.0% | 2.1% |
| Ad Valorem Taxes | N.A. | N.A. | $23,715 | $9,271 | N.A. | $32,986 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.0% |
| Severance Taxes | N.A. | N.A. | $21,429 | $6,941 | N.A. | $28,370 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.1% |
| FMR (Federal Share) | N.A. | N.A. | $31,445 | $12,104 | N.A. | $43,549 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.0% |
| FMR (WY Share) | N.A. | N.A. | $26,465 | $10,187 | N.A. | $36,652 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.0% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-20. Net Present Value (3% Discount Rate) by Program, 2016–2031, Alternative C (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $7,248,384 | $12,819,701 | $3,562,057 | $367,775 | $24,087,031 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.3% |
| Total Economic Output | $163,791 | $8,988,281 | $15,359,591 | $5,648,698 | $453,010 | $30,613,372 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.2% |
| Total Labor Earnings | $56,161 | $3,164,534 | $1,233,701 | $988,809 | $98,284 | $5,541,489 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.2% |
| Average Jobs Per Year | 133 | 3,534 | 1,303 | 997 | 324 | 6,291 |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| % Difference from Alt. A | 0.0% | 2.9% | 2.8% | 0.0% | 0.0% | 2.2% |
| Ad Valorem Taxes | N.A. | N.A. | $655,566 | $116,457 | N.A. | $772,023 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |
| Severance Taxes | N.A. | N.A. | $592,379 | $87,183 | N.A. | $679,562 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |
| FMR (Federal Share) | N.A. | N.A. | $870,137 | $152,042 | N.A. | $1,022,179 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |
| FMR (WY Share) | N.A. | N.A. | $732,325 | $127,962 | N.A. | $860,287 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-21. Net Present Value (7% Discount Rate) by Program, 2016–2031, Alternative C (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $5,451,189 | $8,980,103 | $2,678,866 | $276,587 | $17,453,764 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.3% |
| Total Economic Output | $123,180 | $6,759,688 | $10,759,277 | $4,248,136 | $340,689 | $22,230,970 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.2% |
| Total Labor Earnings | $42,236 | $2,379,906 | $864,199 | $743,639 | $73,915 | $4,103,895 |
| % Difference from Alt. A | 0.0% | 2.8% | 2.8% | 0.0% | 0.0% | 2.2% |
| Average Jobs Per Year | 133 | 3,534 | 1,303 | 997 | 324 | 6,291 |
| % Difference from Alt. A | N.A. | 2.9% | 2.8% | 0.0% | 0.0% | 2.2% |
| Ad Valorem Taxes | N.A. | N.A. | $459,266 | $87,582 | N.A. | $546,848 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.3% |
| Severance Taxes | N.A. | N.A. | $414,999 | $65,567 | N.A. | $480,566 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |
| FMR (Federal Share) | N.A. | N.A. | $609,524 | $114,344 | N.A. | $723,868 |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |
| FMR (WY Share) | N.A. | N.A. | $512,988 | $96,234 | N.A. | $609,222 |
| % Difference from Alt. A | N.A. | N.A. | 2.8% | 0.0% | N.A. | 2.4% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-22. Total Annual Impacts by Program, 2016, Alternative D (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $556,012 | $446,197 | $283,578 | $29,279 | $1,322,160 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | 0.0% | -0.7% |
| Total Economic Output | $13,040 | $689,474 | $534,559 | $449,698 | $36,065 | $1,722,836 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | 0.0% | -0.7% |
| Total Labor Earnings | $4,471 | $242,746 | $42,940 | $78,720 | $7,824 | $376,701 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | 0.0% | -0.7% |
| Jobs | 133 | 3,404 | 540 | 997 | 324 | 5,398 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | 0.0% | -0.7% |
| Ad Valorem Taxes | N.A. | N.A. | $22,841 | $9,271 | N.A. | $32,112 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.7% |
| Severance Taxes | N.A. | N.A. | $20,639 | $6,941 | N.A. | $27,580 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.7% |
| FMR (Federal Share) | N.A. | N.A. | $30,286 | $12,104 | N.A. | $42,390 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.7% |
| FMR (WY Share) | N.A. | N.A. | $25,489 | $10,187 | N.A. | $35,676 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.7% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-23. Net Present Value (3% Discount Rate) by Program, 2016–2031, Alternative D (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $6,984,126 | $12,346,890 | $3,562,057 | $367,775 | $23,349,963 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.8% |
| Total Economic Output | $163,791 | $8,660,550 | $14,793,106 | $5,648,698 | $453,010 | $29,719,155 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.8% |
| Total Labor Earnings | $56,161 | $3,049,152 | $1,188,201 | $988,809 | $98,284 | $5,380,607 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.7% |
| Average Jobs Per Year | 133 | 3,405 | 1,255 | 997 | 324.0 | 6,114 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.7% |
| Ad Valorem Taxes | N.A. | N.A. | $631,390 | $116,457 | N.A. | $747,847 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |
| Severance Taxes | N.A. | N.A. | $570,533 | $87,183 | N.A. | $657,716 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.9% |
| FMR (Federal Share) | N.A. | N.A. | $838,045 | $152,042 | N.A. | $990,087 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |
| FMR (WY Share) | N.A. | N.A. | $705,316 | $127,962 | N.A. | $833,278 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-24. Net Present Value (7% Discount Rate) by Program, 2016–2031, Alternative D (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $5,252,452 | $8,648,912 | $2,678,866 | $276,587 | $16,923,836 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.8% |
| Total Economic Output | $123,180 | $6,513,216 | $10,362,469 | $4,248,136 | $340,689 | $21,587,689 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.7% |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Total Labor Earnings | $42,236 | $2,293,132 | $832,326 | $743,639 | $73,915 | $3,985,249 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.7% |
| Average Jobs Per Year | 133 | 3,405 | 1,255.0 | 997 | 324.0 | 6,114 |
| % Difference from Alt. A | 0.0% | -0.9% | -1.0% | 0.0% | N.A. | -0.7% |
| Ad Valorem Taxes | N.A. | N.A. | $442,329 | $87,582 | N.A. | $529,911 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |
| Severance Taxes | N.A. | N.A. | $399,695 | $65,567 | N.A. | $465,262 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |
| FMR (Federal Share) | N.A. | N.A. | $587,045 | $114,344 | N.A. | $701,389 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |
| FMR (WY Share) | N.A. | N.A. | $494,069 | $96,234 | N.A. | $590,303 |
| % Difference from Alt. A | N.A. | N.A. | -1.0% | 0.0% | N.A. | -0.8% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-25. Total Annual Impacts by Program, 2016, Proposed RMP (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $149,581–$556,012 | $119,397–$446,197 | $283,578 | $29,279 | $588,929–$1,322,160 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -55.8% – -0.70% |
| Total Economic Output | $13,040 | $185,507–$689,474 | $143,052–$534,559 | $449,698 | $36,065 | $827,362–$1,722,836 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -52.3% – -0.70% |
| Total Labor Earnings | $4,471 | $65,310–$242,746 | $11,490–$42,940 | $78,720 | $7,824 | $167,816–$376,701 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -55.8% – -0.70% |
| Jobs | 133 | 917–3,404 | 144–540 | 997 | 324 | 2,515–5,398 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -53.7% – -0.70% |
| Ad Valorem Taxes | N.A. | N.A. | $6,112–$22,841 | $9,271 | N.A. | $15,383 - $32,112 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -52.4% – -0.70% |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Severance Taxes | N.A. | N.A. | $5,523–$20,639 | $6,941 | N.A. | $12,464–$27,580 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -55.1% – -0.70% |
| FMR (Federal Share) | N.A. | N.A. | $8,104–$30,286 | $12,104 | N.A. | $20,208–$42,390 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -52.7% – -0.70% |
| FMR (WY Share) | N.A. | N.A. | $6,821–$25,489 | $10,187 | N.A. | $17,008–$35,676 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -52.7% – -0.70% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-26. Net Present Value (3% Discount Rate) by Program, 2016–2031, Proposed RMP (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation)[1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $1,878,902–$6,984,126 | $3,305,418–$12,346,890 | $3,562,057 | $367,775 | $9,203,266–$23,349,963 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -60.9% – -0.80% |
| Total Economic Output | $163,791 | $2,330,173–$8,660,550 | $3,960,300–$14,793,106 | $5,648,698 | $453,010 | $12,555,972–$29,719,155 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -58.1% – -0.80% |
| Total Labor Earnings | $56,161 | $820,368–$3,049,152 | $318,096–$1,188,201 | $988,809 | $98,284 | $2,281,719–$5,380,607 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -57.9% – -0.70% |
| Average Jobs Per Year | 133 | 917–3,405 | 336–1,255 | 997 | 324.0 | 2,707–6,114 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -56.0% – -0.70% |
| Ad Valorem Taxes | N.A. | N.A. | $169,019–$631,390 | $116,457 | N.A. | $285,476–$747,847 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -62.1% – -0.80% |
| Severance Taxes | N.A. | N.A. | $152,728–$570,533 | $87,183 | N.A. | $239,911–$657,716 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -63.8% – -0.90% |
| FMR (Federal Share) | N.A. | N.A. | $224,355–$838,045 | $152,042 | N.A. | $376,397–$990,087 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -62.3% – -0.80% |
| FMR (WY Share) | N.A. | N.A. | $188,822–$705,316 | $127,962 | N.A. | $316,784–$833,278 |

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation)[1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -62.3% – -0.80% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table N-27. Net Present Value (7% Discount Rate) by Program, 2016–2031, Proposed RMP (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation)[1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $1,413,039–$5,252,452 | $2,315,364–$8,648,912 | $2,678,866 | $276,587 | $6,750,876–$16,923,836 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -60.4% – -0.80% |
| Total Economic Output | $123,180 | $1,752,420–$6,513,216 | $2,774,094–$10,362,469 | $4,248,136 | $340,689 | $9,238,518–$21,587,689 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -57.5% – -0.70% |
| Total Labor Earnings | $42,236 | $616,962–$2,293,132 | $222,819–$832,326 | $743,639 | $73,915 | $1,699,571–$3,985,249 |
| % Difference from Alt. A | 0.0% | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -57.7% – -0.70% |
| Average Jobs Per Year | 133 | 917–3,406 | 336–1,255 | 997 | 324.0 | 2,707–6,114 |
| % Difference from Alt. A | N.A. | -73.3% – -0.90% | -73.5% – -1.00% | 0.0% | 0.0% | -56.0% – -0.70% |
| Ad Valorem Taxes | N.A. | N.A. | $118,406–$442,329 | $87,582 | N.A. | $205,988–$529,911 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -61.4% – -0.80% |
| Severance Taxes | N.A. | N.A. | $106,993–$399,695 | $65,567 | N.A. | $172,560–$465,262 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -63.2% – -0.80% |
| FMR (Federal Share) | N.A. | N.A. | $157,155–$587,045 | $114,344 | N.A. | $271,499–$701,389 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -61.6% – -0.80% |
| FMR (WY Share) | N.A. | N.A. | $132,265–$494,069 | $96,234 | N.A. | $228,499–$590,303 |
| % Difference from Alt. A | N.A. | N.A. | -73.5% – -1.00% | 0.0% | N.A. | -61.6% – -0.80% |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

# N.5 ACRONYMS LIST

| | |
|---|---|
| AFE | Authorization for Expenditures |
| AUM | Animal Unit Month |
| BBL | Barrel |
| BEA | Bureau of Economic Analysis |
| BLM | Bureau Land Management |
| BLS | Bureau of Labor Statistics |
| CBNG | Coalbed Natural Gas |
| ERS | Economic Research Service |
| EIA | U.S. Energy Information Administration |
| EIS | Environmental Impact Statement |
| FAQ | Frequently Asked Questions |
| FY | Fiscal year |
| IMPLAN | IMPact analysis for PLANning |
| KSLA | Known Sodium Leasing Area |
| MCF | Million Cubic Feet |
| NVUM | USFS National Visitor Use Monitoring |
| OHV | Off-highway vehicle |
| OMB | Office of Management and Budget |
| ONRR | Department of the Interior Office of Natural Resources Revenue |
| RFD | Reasonable Foreseeable Development |
| RMIS | Recreation Management Information System |
| RMP | Resource Management Plan |
| RSFO | Rock Springs Field Office |
| USDA | United States Department of Agriculture |
| USFS | United States Forest Service |

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# N.7 ATTACHMENT 1. CALCULATION OF DIRECT ECONOMIC CONTRIBUTION AND DIRECT ECONOMIC IMPACT (EXAMPLE)

**Rock Springs Field Office Recreation Spending (High Visitation Estimate)**
**Alternative A**
All dollar values are in 2014 dollars Highlighting indicates NVUM data. All other data are for the RSFO, directly or by calculation.

| Trip Type | Wildlife Related | Other Visits | Total Visits | Wildlife Related Individual Visits | Other Visits Individual Visits | Total Individual Visits | Average Party Size | Wildlife Related Party Visits | Other Visits Party Visits | Total Party Visits | Wildlife Related Per Party Spending | Other Per Party Spending (Low) | Total Wildlife Related Spending | Total Other Visits Spending | Total Visitor Spending (Contribution) | Out-of-Area Substitution | Direct Economic Impact |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Non-local Day Trips | 39.7% | 39.7% | 39.7% | 133,356 | 203,029 | 336,385 | 2.59 | 51,489 | 78,390 | 129,878 | $76.73 | $58.61 | $3,950,590 | $4,594,796 | $8,545,386 | 100.00% | $8,545,386 |
| Non-local Overnight on BLM | 18.3% | 18.3% | 18.3% | 61,472 | 93,588 | 155,059 | 3.00 | 20,491 | 31,196 | 51,686 | $300.93 | $179.24 | $6,166,264 | $5,591,588 | $11,757,851 | 100.00% | $11,757,851 |
| Non-local Overnight off BLM | 4.6% | 4.6% | 4.6% | 15,452 | 23,525 | 38,977 | 2.77 | 5,578 | 8,493 | 14,071 | $566.17 | $338.18 | $3,158,234 | $2,872,020 | $6,030,253 | 100.00% | $6,030,253 |
| Local Day Trips | 22.9% | 22.9% | 22.9% | 76,923 | 117,112 | 194,036 | 2.90 | 26,525 | 40,384 | 66,909 | $45.34 | $36.59 | $1,202,528 | $1,477,712 | $2,680,240 | 17.00% | $455,641 |
| Local Overnight on BLM | 8.8% | 8.8% | 8.8% | 29,560 | 45,004 | 74,564 | 3.21 | 9,209 | 14,020 | 23,229 | $220.28 | $162.73 | $2,028,526 | $2,281,455 | $4,309,981 | 36.00% | $1,551,593 |
| Local Overnight off BLM | 1.2% | 1.2% | 1.2% | 4,031 | 6,137 | 10,168 | 2.32 | 1,737 | 2,645 | 4,383 | $208.70 | $205.53 | $362,612 | $543,670 | $906,282 | 46.00% | $416,890 |
| Non Primary Visits | 4.5% | 4.5% | 4.5% | 15,116 | 23,013 | 38,129 | 2.93 | 5,159 | 7,854 | 13,013 | $45.34 | $36.59 | $233,885 | $287,407 | $521,292 | 100.00% | $521,292 |
| Total | | | | 335,910 | 511,408 | 847,318 | 2.79 | | | | $142.30 | $96.45 | | $17,648,648 | $34,751,286 | | |
| | 100.0% | 100.0% | 100.0% | 335,910 | 511,408 | 847,318 | | 120,188 | 182,981 | 303,170 | | | $17,102,638 | Per Party | $114.63 | | $29,278,907 |
| | | | | 39.6% | 60.4% | 100.0% | | | | | | | | Per Person | $41.01 | | |

| Low Spending Profile | Wildlife NL Day | Wildlife NL OVN-NF | Wildlife NL-OVN | Wildlife Local Day | Wildlife Local OVN-NF | Wildlife Local OVN | Wildlife Not Primary | Other NL Day | Other NL OVN-NF | Other NL-OVN | Other Local Day | Other Local OVN-NF | Other Local OVN | Other Not Primary |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOTEL | $0.00 | $48.45 | $197.92 | $0.00 | $4.85 | $24.27 | $0.00 | $0.00 | $20.00 | $110.55 | $0.00 | $4.53 | $35.53 | $0.00 |
| CAMPGROUND | $0.00 | $29.86 | $13.48 | $0.00 | $29.24 | $13.87 | $0.00 | $0.00 | $20.75 | $16.13 | $0.00 | $24.63 | $17.95 | $0.00 |
| RESTAURANT & BAR | $9.49 | $25.73 | $95.62 | $3.08 | $8.16 | $13.86 | $3.08 | $11.63 | $18.98 | $70.20 | $5.70 | $7.17 | $26.40 | $5.70 |
| GROCERY | $11.80 | $66.81 | $84.40 | $6.76 | $76.43 | $58.82 | $6.76 | $9.38 | $45.20 | $44.39 | $6.98 | $64.93 | $52.49 | $6.98 |
| GASOLINE | $40.84 | $84.83 | $88.90 | $22.28 | $69.09 | $63.24 | $22.28 | $27.52 | $49.10 | $60.94 | $15.87 | $41.57 | $47.32 | $15.87 |
| LOCAL TRANSPORTATION | $0.13 | $0.70 | $1.53 | $0.03 | $0.02 | $1.17 | $0.03 | $0.10 | $0.75 | $1.63 | $0.06 | $0.06 | $1.05 | $0.06 |
| ENTRY FEES | $2.17 | $10.20 | $10.01 | $1.89 | $3.12 | $1.86 | $1.89 | $3.72 | $8.09 | $5.60 | $3.11 | $5.79 | $3.42 | $3.11 |
| RECREATION & ENTERTAINMENT | $1.21 | $5.98 | $30.56 | $0.87 | $1.36 | $0.49 | $0.87 | $2.80 | $4.50 | $9.93 | $0.73 | $2.17 | $0.45 | $0.73 |
| SPORTING GOODS | $9.06 | $20.84 | $23.61 | $9.89 | $25.14 | $23.28 | $9.89 | $2.54 | $7.82 | $9.02 | $3.75 | $10.98 | $10.23 | $3.75 |
| SOUVENIRS | $2.02 | $7.53 | $20.15 | $0.54 | $2.87 | $7.83 | $0.54 | $0.91 | $4.04 | $9.77 | $0.39 | $0.90 | $10.69 | $0.39 |
| TOTAL | $76.73 | $300.93 | $566.17 | $45.34 | $220.28 | $208.70 | $45.34 | $58.61 | $179.24 | $338.18 | $36.59 | $162.73 | $205.53 | $36.59 |

| -- | Wildlife NL Day | Wildlife NL OVN-NF | Wildlife NL-OVN | Wildlife Local Day | Wildlife Local OVN-NF | Wildlife Local OVN | Wildlife Not Primary | Other NL Day | Other NL OVN-NF | Other NL-OVN | Other Local Day | Other Local OVN-NF | Other Local OVN | Other Not Primary | Direct Economic Contribution | Direct Economic Impact |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOTEL | $0 | $992,845 | $1,104,032 | $0 | $44,700 | $42,176 | $0 | $0 | $624,018 | $938,901 | $0 | $63,531 | $93,996 | $0 | $3,904,199 | $3,761,398.59 |
| CAMPGROUND | $0 | $611,869 | $75,212 | $0 | $269,296 | $24,094 | $0 | $0 | $647,193 | $136,991 | $0 | $345,258 | $47,483 | $0 | $2,157,396 | $1,725,429.95 |
| RESTAURANT & BAR | $488,872 | $527,211 | $533,380 | $81,679 | $75,114 | $24,082 | $15,886 | $911,827 | $592,173 | $596,208 | $230,207 | $100,537 | $69,834 | $44,774 | $4,291,783 | $3,869,786.62 |
| GROCERY | $607,729 | $1,368,910 | $470,791 | $179,319 | $703,804 | $102,204 | $34,877 | $735,255 | $1,410,169 | $376,983 | $281,922 | $910,283 | $138,837 | $54,832 | $7,375,915 | $5,829,907.16 |
| GASOLINE | $2,102,684 | $1,738,163 | $495,886 | $591,111 | $636,237 | $109,875 | $114,968 | $2,157,022 | $1,531,646 | $517,562 | $640,980 | $582,823 | $125,175 | $124,667 | $11,468,799 | $9,539,038.04 |
| LOCAL TRANSPORTATION | $6,807 | $14,315 | $8,529 | $902 | $157 | $2,035 | $175 | $8,184 | $23,322 | $13,882 | $2,463 | $857 | $2,774 | $479 | $84,880 | $78,841.70 |
| ENTRY FEES | $111,746 | $209,044 | $55,838 | $50,149 | $28,740 | $3,236 | $9,754 | $291,962 | $252,509 | $47,601 | $125,730 | $81,189 | $9,043 | $24,454 | $1,300,994 | $1,078,029.81 |
| RECREATION & ENTERTAINMENT | $62,528 | $122,623 | $170,475 | $22,963 | $12,535 | $848 | $4,466 | $219,616 | $140,341 | $84,321 | $29,423 | $30,364 | $1,180 | $5,723 | $907,407 | $835,375.56 |
| SPORTING GOODS | $466,278 | $427,067 | $131,706 | $262,211 | $231,478 | $40,450 | $50,999 | $199,337 | $244,064 | $76,574 | $151,305 | $153,934 | $27,061 | $29,428 | $2,491,893 | $1,865,554.56 |
| SOUVENIRS | $103,941 | $154,216 | $112,385 | $14,196 | $26,464 | $13,613 | $2,761 | $71,593 | $126,150 | $82,997 | $15,677 | $12,677 | $28,288 | $3,049 | $768,007 | $695,535.39 |
| TOTAL | $3,950,585 | $6,166,264 | $3,158,234 | $1,202,530 | $2,028,525 | $362,611 | $233,886 | $4,594,796 | $5,591,585 | $2,872,020 | $1,477,708 | $2,281,454 | $543,670 | $287,406 | $34,751,274 | $29,278,897 |

# APPENDIX O—REMI MODEL APPLICATION AND DISCUSSION

## O.1 SUMMARY

The State of Wyoming Economic Analysis Division prepared a Regional Economic Models, Inc. (REMI) model analysis in collaboration with the Bureau of Land Management (BLM), the Cooperating Agencies, and a BLM contractor team (Booz Allen Hamilton and the University of Wyoming). The REMI analysis addressed the same resource uses as the Impact Analysis for Planning (IMPLAN) model analysis. The REMI model analysis was only conducted for Alternatives A and B for oil and gas development, oil and gas production, and recreation, and for Alternative A for livestock grazing, coal production, and trona (soda ash) production. This was because the levels of all resource use activities are expected to differ only marginally (a few percent or less) between Alternatives A, C, D, and the Proposed Resource Management Plan (RMP), and Alternative B substantially differs from Alternative A only for oil and gas development, oil and gas production, and recreation.[1]

The direct impact inputs for each model were the same. However, the methodologies for inputting those values to each model differed to varying degrees for each resource use, in large part due to differences in the industrial sectors available in REMI compared to IMPLAN, and to the need to disaggregate the inputs used for the five-county IMPLAN model to each of the five county-specific REMI models owned by the state. The process for disaggregating inputs included consultation with BLM Rock Springs Field Office (RSFO) resource specialists and review of relevant tabular and spatial data. For each resource use, the majority of the input amounts were allocated to Sweetwater County. The results from the REMI model for each of the five counties were reaggregated to socioeconomic study area totals for comparison with the IMPLAN model results.

Table O.1-1 summarizes the REMI model results and compares the results to the IMPLAN model results on a percentage difference basis. This table only addresses annual impacts for 2016; however, the comparisons based on net present value are not dramatically different. In most cases, the table shows that the results of the two models are within 20%, which is very reasonable given the many considerations involved in economic impact modeling. The differences for grazing and oil and gas production are larger. However, those differences may be explained by methodological factors described below rather than any inherent "error" in either model. Readers interested in the differences between the two models and their results should carefully review the detailed tables and discussions below, particularly regarding reasons for the differences between the two models' results for grazing and oil and gas production.

Based on the reasonable effort made toward an apples-to-apples comparison between the models, the differences in results between the IMPLAN and REMI models are not so great that they would lead to different management decisions (selection of a different preferred alternative) if REMI were used for the quantitative economic analysis instead of IMPLAN. They do not tell decisively different economic stories about the nature of the local economy or the alternatives.

[1] *The analysis in this appendix was conducted in 2016 – 2017. At that time, the analysis team understood the management decisions for recreation under Alternative B to mean that the Killpecker Sand Dunes area would be closed. It was assumed that effectively, all recreation visits to that site as indicated by available RMIS data would no longer occur. This is not the case. Under Alternative B, the Killpecker Sand Dunes Special Recreation Management Area would not be retained, but recreation could and would continue at that site. The numbers and discussion for Alternative B throughout this appendix are based on the 2016 – 2017 assumption of closure of the Killpecker Sand Dunes. It was not feasible to update the REMI analysis or the IMPLAN-REMI comparisons. This does not affect the conclusions drawn in this appendix, because the differences in the results for recreation under Alternative B would be marginal (a few percentage points).*

**Table O.1-1. REMI Results: Total Economic Impacts by Program by Alternative**

| -- | Alt. A REMI Result | Alt. B REMI Result | Alt. A Difference from IMPLAN Result | Alt. B Difference from IMPLAN Result |
|---|---|---|---|---|
| **Total Economic Output, Annual Impact, 2016 (1,000s of 2014$)** | | | | |
| Livestock Grazing (Billed Use)[1] | $8,843 | $8,843 | -32% | -32% |
| Oil and Gas Development[1] | $668,110 | $177,988 | -4% | -4% |
| Oil and Gas Production[2] | $899,852 | $238,583 | 67% | 67% |
| Coal and Soda Ash Production[1,3] | $380,065 | $380,065 | -15% | -15% |
| Recreation (High Visitation)[1] | $32,733 | $28,342 | -9% | -9% |
| **Total BLM-Supported** | **$1,989,603** | **$833,821** | **15%** | **1%** |
| **Total Labor Earnings, Annual Impact, 2016 (1,000s of 2014$)** | | | | |
| Livestock Grazing (Billed Use)[1] | $1,870 | $1,870 | -58% | -58% |
| Oil and Gas Development[1] | $277,766 | $73,752 | 13% | 13% |
| Oil and Gas Production[2] | $79,990 | $21,205 | 84% | 85% |
| Coal and Soda Ash Production[1,3] | $77,420 | $77,420 | -2% | -2% |
| Recreation (High Visitation)[1] | $9,106 | $7,884 | 16% | 16% |
| **Total BLM-Supported** | **$446,152** | **$182,131** | **18%** | **9%** |
| **Total Employment, Annual Impact, 2016 (number of jobs)** | | | | |
| Livestock Grazing (Billed Use)[1] | 115 | 115 | -13% | -13% |
| Oil and Gas Development[1] | 3,106 | 829 | -10% | -10% |
| Oil and Gas Production[2] | 953 | 253 | 75% | 75% |
| Coal and Soda Ash Production[1,3] | 809 | 809 | -19% | -19% |
| Recreation (High Visitation)[1] | 274 | 237 | -16% | -16% |
| **Total BLM-Supported** | **5,256** | **2,244** | **-3%** | **-9%** |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.

# O.2 INTRODUCTION

This Appendix describes the overall intent, methods, and results for the REMI Pilot Project conducted for the Rock Springs Resource Management Plan (RMP). This effort originated in 2012 in response to Cooperating Agency counties advocating for the use of the economic and demographic modeling software, REMI, for quantifying economic and demographic impacts associated with the RMP alternatives. The BLM, the State of Wyoming (hereafter, the State), and the Wyoming County Commissioners Association agreed to a joint effort to conduct a comparative analysis using REMI. The agreement is documented in an Amendment to the Memorandum of Understanding (MOU) between the BLM, the State, and the Agencies Cooperating in the revision of the Rock Springs RMP. The framework the parties agreed upon contained the following understanding and commitments:

- The quantitative economic impact analysis would proceed as originally planned for by the BLM for the RMP/Environment Impact Statement (EIS) and would be conducted by the Booz Allen Hamilton/University of Wyoming team using the IMPLAN model. The results of the IMPLAN-

based analysis are summarized in Chapter 4 and the technical approach is described in Appendix N, Technical Report: Social and Economic Impact Analysis Methodology.

- The Wyoming Economic Analysis Division (WYEAD) would lead the REMI analysis using the county-level REMI model owned by the State.
- There would be close coordination between the two efforts involving economists and social scientists representing the BLM, the State, and the Cooperating Agencies.
- The comparative REMI analysis would be briefly summarized in Chapter 4 and described in greater detail in a standalone appendix.

Since 2012, a significant amount of coordination has taken place to implement this comparative analysis. This coordination included a 2012 presentation to the Cooperating Agencies on the effort, which included an overview of input-output modeling, background information on both IMPLAN and REMI, details on parameters and inputs required for the analysis, and outputs of the models. The BLM and the WYEAD convened for several workshops and multiple conference calls to coordinate the technical details of the analysis and review and discuss results.

Subsequent sections of this Appendix include a description of the REMI model, an overview of the methodology used for analyzing RMP alternatives in REMI, detailed results, and a discussion comparing the REMI and IMPLAN results.

# O.3 WHAT IS THE REMI MODEL?

The REMI model, developed by Regional Economic Models, Inc., is a structural and dynamic economic and demographic forecasting and policy analysis and simulation tool. The tool was developed starting in 1980 to assist decision-makers in testing the economic effects of their policies before implementation. REMI's goal is to develop and support the use of economic models that inform government and corporate decisions.

The Wyoming Department of Administration and Information, Economic Analysis Division (EAD) currently uses two 70-sector version 2.1 REMI PI+ models containing baseline data through 2015: (1) a single-region model covering the entire state of Wyoming, and (2) a 23-region model of for each of the Wyoming counties. The 70 REMI sectors generally cross-walk into the North American Industry Classification System (NAICS) 3-digit industrial codes.

## O.3.1 Characteristics of the REMI Model

The REMI model incorporates aspects of four major modeling approaches: Input-Output, General Equilibrium, Econometric, and Economic Geography. Each of these methodologies has distinct advantages as well as limitations when used alone. The REMI integrated modeling approach builds on the strengths of each of these approaches. A basic overview of each modeling approaches is provided below. More detailed information is available on REMI's website at http://www.remi.com/. By comparison, the IMPLAN model is based on Input-Output modeling but does not include the other three modeling approaches used in REMI.

### Input-Output

The REMI model at its core has the inter-industry relationships found in input-output models such as IMPLAN. As a result, the industry structure of a particular region is captured within the model, as well as transactions between industries. Changes that affect industry sectors that are highly interconnected to the rest of the economy will often have a greater economic impact than those for industries that are not closely linked to the regional economy. The input-output components of REMI and IMPLAN differ in some

respects (e.g., industry sector breakdown, inter-industry coefficients based on different data or parameterization of data), but they follow the same fundamental input-output modeling principles.

## General Equilibrium

General equilibrium is reached when supply and demand are balanced. This tends to occur in the long run, as prices, production, consumption, imports, exports, and other changes occur to stabilize the economic system. For example, if real wages in a region rise relative to the U.S., this will tend to attract economic migrants to the region until relative real wage rates equalize. The general equilibrium properties are necessary to evaluate changes such as tax policies that may have an effect on regional prices and competitiveness.

## Econometric

REMI is sometimes called an "econometric model," as the underlying equations and responses are estimated using advanced statistical techniques. The estimates are used to quantify the structural relationships in the model. The speed of economic responses is also estimated, since different adjustment periods will result in different policy recommendations and even different economic outcomes.

## Economic Geography

The economic geography features represent the spatial dimension of the economy. Transportation costs and accessibility are important economic determinants of interregional trade and the productivity benefits that occur due to industry clustering and labor market access. Firms benefit having access to a large, specialized labor pool and from having access to specialized intermediate inputs from supplying firms. The productivity and competitiveness benefits of labor and industry concentrations are called agglomeration economies and are modeled in the economic geography equations.

## PI+

PI+, the next generation of REMI Inc.'s Policy Insight product, is the core product of REMI. It incorporates the modeling approaches noted above and generates year-by-year estimates of the total regional effects of any specific policy initiative or set of economic inputs. A wide range of policy variables allows the user to represent the policy or change to be evaluated, while the explicit structure in the model helps the user to interpret the predicted economic and demographic effects. The model is calibrated to many sub-national areas such as an individual county for policy analysis and forecasting, and is available in single- and multi-area configurations. Each calibrated area (or region) has economic and demographic variables, as well as policy variables so that any policy or change that affects a local economy can be tested.

Regional policy analysis models can play an important role in evaluating the economic effects of alternative courses of action. Users can answer "what if" questions about the economic effects of policies in areas such as economic development, energy, transportation, the environment, and resource use. Thus, simulation models for state and local economies can help guide decision makers in formulating strategies for these geographical areas.

The model is dynamic, with forecasts and simulations generated on an annual basis based on behavioral responses to compensation, price, and other economic factors. The model consists of thousands of simultaneous equations with a structure that is relatively straightforward. The exact number of equations used varies depending on the extent of industry, demographic, demand, and other detail in the specific model being used. The overall structure of the model can be summarized in five major blocks: (1) Output and Demand, (2) Labor and Capital Demand, (3) Population and Labor Supply, (4) Compensation, Prices, and Costs, and (5) Market Shares.

Different from a snapshot for static analysis (a specific effect in a given moment of time), a dynamic analysis looks at direct, indirect, and induced effects of a policy or scenario across time. Dynamic economic modeling is able to capture 1) the robust potential of the economy, and able to estimate future gains from innovation and increased productivity (labor or capital) through proliferation of technology in different industries throughout a forecasting period, and 2) capture interactions occurring throughout the economy between both market factors and demographic factors; e.g., interrelationship among different aspects of the economy such as labor markets, migration, market share, compensation, prices, and costs.

# O.4 METHODOLOGY

## O.4.1 Overview

Consistent with the IMPLAN-based analysis conducted for the Rock Springs RMP/EIS, the REMI analysis was conducted for the following activities/resource uses:

- Oil and natural gas development
- Oil and natural gas production
- Coal production
- Trona (soda ash) production
- Livestock grazing
- Recreation.

For readers' reference, the concept of direct, indirect, and induced impacts in the REMI model is basically not different from any other economic impact modeling tool such as IMPLAN. Once a direct impact of an economic activity is identified and inputted into REMI, the model is able to estimate indirect and induced impacts generated in the local economy as the direct impact ripples through the economy. The indirect impact is through intermediate demand or supply chain effects because of goods and services purchases generated from the direct impact, while the induced impact refers to local consumption demand effects as a result of increased spending of employees and households generated from the direct impact and indirect impact industries.

Output results from the REMI model (definitions are generally consistent with IMPLAN) include:

- Employment – Because the primary data source for REMI PI+ is the U.S. Bureau of Economic Analysis (BEA), the definition of employment is consistent with BEA's definition. Employment comprises estimates of the number of jobs, full-time plus part-time, mostly by place of work. Full-time and part-time jobs are counted at equal weight, with both on an annual basis (seasonal jobs are adjusted to annual equivalents). Wage and salary employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.
- Labor Earnings – The sum of earnings by place of work for private industries, state and local government, federal civilian, federal military, and farm sectors, including wages and salaries, benefits, and proprietors' income.
- Output – The amount of production, including all intermediate goods purchased as well as value added (compensation and profit). In most cases, output represents sales or supply. The components of Output are Self Supply or Use, and Exports (Multi-regions, Rest of Nation, and Rest of World).
- Average Earnings Per Job (AEPJ) – Labor Earnings divided by Employment.
- Labor Productivity – Output divided by Employment.

All of the resource uses considered in this analysis are already established on BLM-managed lands within the RSFO. With the exception of oil and gas production, Alternative A (No Action) assumes the level of activity associated with each resource use will remain constant and equal to current levels. As noted in Appendix N, Technical Report: Social and Economic Impact Analysis Methodology, oil and gas production and development reflects only new wells. However, oil and gas production and development are present, and industries associated with this activity are well established in the region. New wells in Alternative A essentially represent continuation of recent levels of development activity. While these wells will increase production to some degree in the RSFO, they will also replace production as existing wells in the RSFO decline in productivity over time. Therefore, across all resource uses, the analysis generally tracks the economic activity supported by current levels of resource uses – commonly referred to as an economic contribution analysis. This differs from an economic impact analysis that estimates the effect of new economic activity or a "shock" impact. Consequently, the State utilized specifications for the REMI model that would better model economic contributions, versus modeling an economic shock. These specifications and additional calibrations are discussed below.

With respect to the various management alternatives, the levels of oil and gas activity under Alternatives C D, and the Proposed RMP only differ marginally (a few percent) from Alternative A. The levels of activity for all other resource uses are expected to be essentially identical (any differences cannot be confidently quantified) between Alternatives A, C, D, and the Proposed RMP. Alternative B has substantial differences from Alternative A in economic activity for oil and gas development, oil and gas production, and recreation. Therefore, the REMI model analysis, and comparisons of its results to the IMPLAN model results, were only conducted for Alternatives A and B for those three resource uses, and for Alternative A for livestock grazing, coal production, and trona (soda ash) production.

## O.4.2 REMI Model Calibration

Both the REMI and IMPLAN models require various calibrations prior to impact analysis. Calibration is manual adjustment of economic parameters in order to better match a model to the local economy compared to the unadjusted, "out of the box" parameters in a model's data and specifications of economic relationships.

The State selected a model specification for REMI where "Investment Response to Capital Stock" was turned off, versus the REMI standard model specification with that response turned on. This component of REMI estimates the economic activity associated with the investment that occurs through the capital stock adjustment process. Specifically, the investment in new housing, commercial and industrial buildings, and equipment corresponds to an economic impact or shock. However, in the economic contribution framework, the level of investment is significantly lower than in an economic impact or shock framework.

In addition, because regional economic models typically include assumptions and estimation based on regional or national data that may not align well with local conditions, the State reviewed various parameters for accuracy. Upon review, some of the county-level baseline data used in the REMI model were inconsistent with other data sources and seemed either too high or too low. Therefore, the State used data from the U.S. Census Bureau's Economic Census and U.S. Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages to implement the following calibrations to REMI's New Regional Control (the new baseline model in REMI):

- Increased labor productivity in Oil and Gas Extraction (NAICS sector 211) for both Sweetwater and Sublette counties.
- Redistributed employment between Oil and Gas Extraction (211) and Support Activities for Mining (213) for Sublette.
- Reduced labor productivity in Support Activities for Mining (213) for Sweetwater and Sublette counties.

- Reduced compensation rate in Support Activities for Mining (213) for Sublette County.
- Reduced labor productivity and compensation rate in Chemical Manufacturing (325) for Sweetwater County.

In addition, since REMI does not automatically apply margining for wholesale trade and retail trade industries, we assumed the margin value to be 34.6% for food stores and other retail trade, and 17.3% for wholesale trade when related expenditures were inserted into the model, based on data in IMPLAN. See Appendix N for a discussion of margining.

## O.4.3 REMI Inputs by Resource Use

The State participated in multiple discussions with the BLM and representatives of local governments and other Cooperating Agencies regarding input data processing and development. Participants in those discussions mutually agreed that the direct impact input data from the BLM used in the IMPLAN analysis should be used for the REMI analysis. Therefore, the total amounts of direct economic impacts that were used as inputs to the REMI model for each resource use were identical to those for IMPLAN model. Appendix N describes the procedures and data used to derive the direct impacts used for the IMPLAN model. All expenditures from 2016 to 2031 are in 2014 constant dollars, which is consistent with the IMPLAN analysis.

While the direct impacts for each model were the same, the methodologies for inputting those values to each model differed to varying degrees for each resource use, in large part due to differences in the industrial sectors available in REMI compared to IMPLAN and to the need to disaggregate the inputs used for the five-county IMPLAN model to each of the five county-specific REMI models owned by the State. The process for determining the REMI-specific inputs was highly collaborative.

The REMI sector scheme (70 sectors) differs from the IMPLAN sector scheme that consists of 536 sectors. The State reviewed the assumed distribution of inputs to IMPLAN sectors for each resource use (see Appendix N) and identified that REMI sector that most closely matches. The BLM and its RMP/EIS contractors reviewed this crosswalk exercise. In addition, because the State's 23-region REMI model for counties treats each county as an individual region, the inputs needed to be disaggregated across the five counties in the study area. The process for disaggregating inputs included consultation with BLM resource specialists and review of relevant tabular and spatial data. For each resource use, the majority of the input amounts were allocated to Sweetwater County; the specific allocations are noted below.

### Oil and Gas Development (Drilling and Completion)

Based on the reasonable foreseeable development (RFD) projections of where the most oil and gas development will occur during the planning period (the extreme northwest and southeast corners of the RSFO), the study team estimated that most of the economic activity due to that development will occur in Sweetwater and Sublette counties. It is likely that some oil and gas development goods and services are supplied from businesses located in Fremont, Lincoln, and Uinta counties, but the amount is likely to be minimal compared to Sweetwater and Sublette counties. Therefore, 60% of the expenditures were allocated to Sweetwater County and 40% were allocated to Sublette County based on industry employment data from the BLS.

For the calibration, labor productivity for Support Activities for Mining (NAICS code 213) in both Sweetwater and Sublette counties was decreased to be roughly consistent with REMI's historical trend and U.S. Census Bureau's Economic Census results. The compensation rate in Support Activities for Mining for Sublette was also reduced, and the employment figures for Oil and Gas Extraction (NAICS code 211) and Support Activities for Mining (NAICS code 213) for Sublette were redistributed based on BLS data.

In addition, a margin value of 17.3% was assumed for wholesale trade when related expenditures were inserted into the model, based on data in IMPLAN.

Table O.4-1 and Table O.4-2 show the direct impact inputs to the REMI model by sector[2] and county for Alternative A and Alternative B. The input amounts were the same for each year from 2016 to 2031.

**Table O.4-1. Inputs for Oil and Gas Development – Alternative A (millions of 2014$)**

| Sector – NAICS Code | Sublette | Sweetwater |
|---|---|---|
| Drilling Oil and Gas Wells - 2131111 | $67.40 | $101.10 |
| Other Support Activities for Mining - 21311A (REMI sector combining 4 NAICS codes) | $91.53 | $137.26 |
| Labor Income (Contract Labor) - 213 | $9.25 | $13.88 |
| Power and Communication Structures - 233240 | $6.13 | $9.19 |
| Highways and Streets - 233293 | $2.71 | $4.06 |
| Wholesale Trade - 420000 | $17.38 | $26.07 |
| Truck Transportation - 484000 | $11.97 | $17.95 |
| Wired Telecommunications Carriers - 517110 | $0.02 | $0.03 |
| Insurance Agencies, Brokerages, and Related Activities - 524200 | $0.17 | $0.26 |
| Commercial and Industrial Machinery and Equipment Rental and Leasing - 532400 | $12.06 | $18.09 |
| Legal Services - 541100 | $1.25 | $1.88 |
| Accounting, Tax Preparation, Bookkeeping, and Payroll Services - 541200 | $0.48 | $0.72 |
| Architectural, Engineering, and Related Services - 541300 | $3.96 | $5.93 |
| Waste Management and Remediation Services - 562000 | $0.12 | $0.18 |
| **Total Input** | **$224.43** | **$336.64** |

**Table O.4-2. Inputs for Oil and Gas Development – Alternative B (millions of 2014$)**

| Sector – NAICS Code | Sublette | Sweetwater |
|---|---|---|
| Drilling Oil and Gas Wells - 2131111 | $17.99 | $26.98 |
| Other Support Activities for Mining - 21311A (multiple NAICS codes) | $24.31 | $36.46 |
| Labor Income (Contract Labor) - 213 | $2.45 | $3.68 |
| Power and Communication Structures - 233240 | $1.62 | $2.44 |
| Highways and Streets - 233293 | $0.75 | $1.12 |
| Wholesale Trade - 420000 | $4.63 | $6.94 |
| Truck Transportation - 484000 | $3.18 | $4.78 |
| Wired Telecommunications Carriers - 517110 | $0.01 | $0.01 |
| Insurance Agencies, Brokerages, and Related Activities - 524200 | $0.05 | $0.07 |
| Commercial and Industrial Machinery and Equipment Rental and Leasing - 532400 | $3.24 | $4.86 |
| Legal Services - 541100 | $0.34 | $0.50 |
| Accounting, Tax Preparation, Bookkeeping, and Payroll Services - 541200 | $0.16 | $0.25 |
| Architectural, Engineering, and Related Services - 541300 | $1.07 | $1.61 |
| Waste Management and Remediation Services - 562000 | $0.03 | $0.05 |
| **Total Input** | **$59.83** | **$89.75** |

[2] *Including the NAICS (North American Industry Classification System) code for each sector.*

## Oil and Gas Production (Extraction)

Due to the same reason as described above for oil and gas development, oil and gas production input data were allocated to only Sweetwater and Sublette counties, but the proportion of production value was 78% for Sweetwater County and 22% for Sublette County based on industry employment data from the BLS.

For the calibration, labor productivity for Oil and Gas Extraction (NAICS code 211) in both Sweetwater and Sublette counties was increased to be roughly consistent with REMI's historical trend and the U.S. Census Bureau's Economic Census results. In addition, the proportion of employment between Oil and Gas Extraction (NAICS code 211) and Support Activities for Mining (NAICS code 213) for Sublette County was assumed to be 50% each, based on BLS data. The original REMI baseline forecast assumed this distribution to be 91% in oil and gas extraction and less than 9% in support activities in mining.

Table O.4-3 and Table O.4-4 show the direct impact inputs to the REMI model by sector and county for Alternative A and Alternative B. The input amounts increased in each year from 2016 to 2031 due to additional wells coming into production each year. All direct impact inputs were allocated to the Oil and Gas Extraction (NAICS code 211) sector.

**Table O.4-3. Inputs for Oil and Gas Production – Alternative A (millions of 2014$)**

| County | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|
| Sweetwater | $351.5 | $382.9 | $445.7 | $504.3 | $545.4 | $635.9 | $675.5 | $791.1 |
| Sublette | $99.1 | $108.0 | $125.7 | $142.2 | $153.8 | $179.4 | $190.5 | $223.1 |
| **County** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** |
| Sweetwater | $819.0 | $918.1 | $979.6 | $1,059.2 | $1,177.3 | $1,221.6 | $1,249.4 | $1,314.0 |
| Sublette | $231.0 | $259.0 | $276.3 | $298.7 | $332.1 | $344.6 | $352.4 | $370.6 |

**Table O.4-4. Inputs for Oil and Gas Production – Alternative B (millions of 2014$)**

| County | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|
| Sweetwater | $93.1 | $101.5 | $118.1 | $133.6 | $144.6 | $168.5 | $179.1 | $209.7 |
| Sublette | $26.3 | $28.6 | $33.3 | $37.7 | $40.8 | $47.5 | $50.5 | $59.1 |
| **County** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** |
| Sweetwater | $217.1 | $243.4 | $259.7 | $280.8 | $312.1 | $323.9 | $331.2 | $348.3 |
| Sublette | $61.2 | $68.6 | $73.3 | $79.2 | $88.0 | $91.3 | $93.4 | $98.2 |

## Coal and Trona (Soda Ash) Production

Sales value for coal was inserted into only the REMI Sweetwater County regional model to estimate economic impacts from coal production. No calibrations were deemed necessary for the coal analysis.

For trona, the soda ash revenue was also entered into only the REMI Sweetwater County regional model. For the trona analysis calibration, the labor productivity and compensation rates for Chemical Manufacturing (NAICS code 325) in Sweetwater County were reduced to be roughly consistent with REMI's historical trend and the U.S. Census Bureau's Economic Census results.

The coal and trona analyses were carried out separately. However, due to the small number of operators in the coal and trona industries, the inputs and the analysis results were aggregated for public release in order to avoid releasing potentially proprietary information.

The coal and trona production direct impact inputs to the REMI model totaled $283.6 million (in 2014 dollars) for Alternative A (and all alternatives). The input amounts were the same for each year from 2016 to 2031 and were all allocated to Sweetwater County. The inputs for coal production were allocated to Coal Mining (NAICS code 2121), and for Trona, to Other Basic Inorganic Chemical Manufacturing (NAICS code 325180).

## Livestock Grazing

The total value of livestock production (estimated as described in Appendix N) was allocated based on an estimated distribution of billed animal unit months in 2015 to each of the socioeconomic study area counties, the rest of Wyoming, and outside Wyoming. The estimated distribution was prepared by a RSFO rangeland specialist based on the addresses of the permittee's base operations and the specialist's local knowledge, according to the primary (70%), secondary (20%), and tertiary (10%) locations where the specialist estimated each operator is most likely to purchase livestock supplies, services, and labor. The value of production was inputted into REMI's farm sector that includes all crop and ranching operations. There was no calibration for the farm sector.

Table O.4-5 shows the direct impact inputs to the REMI model by sector and county for Alternative A. The input amounts were the same for each year from 2016 to 2031. The inputs were allocated to a REMI sector that combines NAICS codes 111 (Crop Production) and 112 (Animal Production and Aquaculture).

**Table O.4-5. Inputs for Livestock Grazing – All Alternatives (millions of 2014$)**

| County | Amount |
|---|---|
| Fremont | $0.30 |
| Lincoln | $0.35 |
| Sublette | $0.14 |
| Sweetwater | $4.43 |
| Uinta | $1.88 |
| Total | $7.10 |

## Recreation

The total direct economic expenditures were inserted into the REMI model to recreation-related industries based on estimation of recreation expenditure distributions from U.S. Forest Service National Visitor Use Monitoring (NVUM) program data (see Appendix N). The disaggregation across counties was based on an analysis of site-level RMIS data by the RSFO. A RSFO recreation specialist estimated how recreation expenditures attributable to each site would accrue to the different counties based on the locations of the sites relative to socioeconomic study area communities and the types of recreation and visitors at each site.

Differences between Alternatives A and B were based on estimated reductions in recreation visits to the RSFO due to closure of the Killpecker Sand Dunes site under Alternative B. The BLM assumed that most of the economic activity attributable to visits to that site would be lost from the socioeconomic study area, and therefore deducted 100% of the visits to that site from the total visits. As a result, total visitation and recreation-related expenditures under Alternative B were estimated to be 86.6% of the visitation and expenditures under Alternative A. Due to the location of the Killpecker Sand Dunes within the RSFO and the socioeconomic study area, the BLM assumed the entire related economic change under Alternative B would occur in Sweetwater County. Therefore, the REMI model inputs for Alternative B changed for Sweetwater County only.

For recreation, the mapping of recreation expenditures from IMPLAN industries to REMI industries was particularly important. REMI does not have all same industries that were used in the IMPLAN analysis, so some of the expenditure data used in IMPLAN had to be combined before being input to a broader industry in REMI; e.g., "Other Retail."

For calibration, the State assumed the margin value to be 34.6% for food stores and other retail trade, respectively, when related expenditures were inserted into the model based on data in IMPLAN.

Table O.4-6 and Table O.4-7 show the direct impact inputs to the REMI model by sector and county for Alternative A and Alternative B. The input amounts were the same for each year from 2016 to 2031. Note that for these tables only, the inputs are expressed in thousands of dollars instead of millions of dollars. (Therefore, for example, the total input for Sweetwater County in Alternative A equates to approximately $19.6 million.)

**Table O.4-6. Inputs for Recreation – Alternative A (thousands of 2014$)**

| Sector – NAICS Code | Fremont | Lincoln | Sublette | Sweetwater | Uinta |
|---|---|---|---|---|---|
| Accommodation - 721 | $638.1 | $331.1 | $530.8 | $3,675.6 | $311.2 |
| Food Services and Drinking Places - 722 | $450.0 | $233.5 | $374.4 | $2,592.4 | $219.5 |
| Food and Beverage Stores - 4450 | $678.0 | $351.8 | $564.0 | $3,905.5 | $330.7 |
| Other Retail - 4A0000 (REMI sector combining 9 NAICS codes) | $1,407.2 | $730.1 | $1,170.6 | $8,105.9 | $686.3 |
| Scenic and Sightseeing Transportation and Support Activities for Transportation - 48A000 (REMI sector combining NAICS codes 487 and 488) | $9.2 | $4.8 | $7.6 | $52.8 | $4.5 |
| Museums, Historical Sites, Zoos, and Parks - 7120 | $125.4 | $65.0 | $104.3 | $722.2 | $61.1 |
| Other Amusement and Recreation Industries - 7139 | $97.2 | $50.4 | $80.8 | $559.6 | $47.4 |
| **Total Input (Thousands)** | **$3,405.0** | **$1,766.6** | **$2,832.6** | **$19,614.0** | **$1,660.7** |

**Table O.4-7. Inputs for Recreation – Alternative B (thousands of 2014$)**

| Sector – NAICS Code | Fremont | Lincoln | Sublette | Sweetwater | Uinta |
|---|---|---|---|---|---|
| Accommodation - 721 | $638.1 | $331.1 | $530.8 | $2,939.8 | $311.2 |
| Food Services and Drinking Places - 722 | $450.0 | $233.5 | $374.4 | $2,073.4 | $219.5 |
| Food and Beverage Stores - 4450 | $678.0 | $351.8 | $564.0 | $3,123.6 | $330.7 |
| Other Retail - 4A0000 | $1,407.2 | $730.1 | $1,170.6 | $6,483.2 | $686.3 |
| Scenic and Sightseeing Transportation and Support Activities for Transportation - 48A000 | $9.2 | $4.8 | $7.6 | $42.2 | $4.5 |
| Museums, Historical Sites, Zoos, and Parks - 7120 | $125.4 | $65.0 | $104.3 | $577.6 | $61.1 |
| Other Amusement and Recreation Industries - 7139 | $97.2 | $50.4 | $80.8 | $447.6 | $47.4 |
| **Total Input (Thousands)** | **$3,405.0** | **$1,766.6** | **$2,832.6** | **$15,687.5** | **$1,660.7** |

# O.5 RESULTS

Table O.5-1 through Table O.5-3 present results of the REMI-based impact analysis for Alternative A. Table O.5-4 through Table O.5-6 present the results for Alternative B. As mentioned above (Overview subsection of the Methodology chapter) the differences in inputs (and therefore results) for Alternatives C, D, and the Proposed RMP compared to Alternative A are minor, and therefore the REMI analysis was conducted only for Alternatives A and B. These tables present each alternative's results for direct and total economic output, total labor earnings, and total employment (jobs) for each resource use. They are identical in format to the IMPLAN-based tables in the alternative-specific subsections of the socioeconomics section of Chapter 4 of the EIS, except that these tables do not present the results for mineral taxes and federal mineral royalty revenues. Neither IMPLAN nor REMI were used to calculate those revenues so those figures are irrelevant to the discussions in this appendix.

Table O.5-7 through Table O.5-9 present summaries of the REMI results organized by three economic indicators: total economic output, total labor earnings, and total employment. For Alternatives A and B, these tables correspond to tables found in the "Summary of the Quantitative Economic Impact Analysis Results" subsection of Chapter 4 of the EIS. However, the tables below also differ; they include the percent difference between the REMI and IMPLAN results for the two alternatives. Also, the REMI analysis did not include the additional scenarios included in Chapter 4 of the EIS (Livestock Grazing under Total Authorized Use, Recreation Low Visitation, and Recreation Economic Contribution) so there are no tables below for those scenarios.

REMI also produces estimates of the population associated with an economic impact, and how the population changes over time. However, REMI's population estimates appear to align with a "shock" or new activity setting rather than an economic contribution (existing activity) setting. For example, REMI results show estimated population increasing over the first several years due to the model assuming migrants would enter the region to fill new jobs. However, for most of the economic activity analyzed in this EIS, most of the jobs already exist. For instance, there are no new jobs created under Alternative A for grazing, coal and trona production, and recreation. Even for oil and gas development and production, much of the economic activity from new well drilling and production is ongoing "renewal" of activity associated with recent patterns of activity. Therefore, the State, in consultation with the BLM team, determined that REMI's population estimates are not appropriate for the modeling context in this analysis and therefore they are not included in this appendix.

## Table O.5-1. REMI Results: Total Annual Impacts by Program, 2016, Alternative A (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $561,074 | $450,660 | $283,578 | $29,279 | **$1,331,685** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Total Economic Output | $8,843 | $668,110 | $899,852 | $380,065 | $32,733 | **$1,989,603** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Total Labor Earnings | $1,870 | $277,766 | $79,990 | $77,420 | $9,106 | **$446,152** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Jobs | 115 | 3,106 | 953 | 809 | 274 | **5,256** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table O.5-2. REMI Results: Net Present Value (3% Discount Rate) by Program, 2016–2031, Alternative A (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $7,047,714 | $12,469,766 | $3,562,057 | $367,775 | **$23,536,427** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Total Economic Output | $103,456 | $8,075,373 | $24,646,868 | $4,642,287 | $388,191 | **$37,856,174** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Total Labor Earnings | $21,844 | $3,426,290 | $2,133,314 | $940,072 | $108,059 | **$6,629,578** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Average Jobs Per Year | 98 | 2,835 | 1,971 | 707 | 236 | **5,847** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table O.5-3. REMI Results: Net Present Value (7% Discount Rate) by Program, 2016–2031, Alternative A (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $5,300,274 | $8,735,008 | $2,678,866 | $276,587 | **$17,057,755** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Total Economic Output | $78,127 | $6,090,314 | $17,268,726 | $3,499,202 | $293,054 | **$27,229,422** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Total Labor Earnings | $16,612 | $2,587,695 | $1,499,628 | $711,197 | $81,926 | **$4,897,058** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |
| Average Jobs Per Year | 98 | 2,835 | 1,971 | 707 | 236 | **5,847** |
| % Difference from Alt. A | N.A. | N.A. | N.A. | N.A. | N.A. | **N.A.** |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table O.5-4. REMI Results: Total Annual Impacts by Program, 2016, Alternative B (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $7,094 | $149,581 | $119,397 | $283,578 | $25,352 | **$585,002** |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | -13.4% | **-56.1%** |
| Total Economic Output | $8,843 | $177,988 | $238,583 | $380,065 | $28,342 | **$833,821** |
| % Difference from Alt. A | 0.0% | -73.4% | -73.5% | 0.0% | -13.4% | **-58.1%** |
| Total Labor Earnings | $1,870 | $73,752 | $21,205 | $77,420 | $7,884 | **$182,131** |
| % Difference from Alt. A | 0.0% | -73.4% | -73.5% | 0.0% | -13.4% | **-59.2%** |
| Jobs | 115 | 829 | 253 | 809 | 237 | **2,244** |
| % Difference from Alt. A | 0.0% | -73.3% | -73.4% | 0.0% | -13.4% | **-57.3%** |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial values; these would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table O.5-5. REMI Results: Net Present Value (3% Discount Rate) by Program, 2016–2031, Alternative B (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $89,114 | $1,878,902 | $3,305,418 | $3,562,057 | $318,454 | **$9,153,944** |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | -13.4% | **-61.1%** |
| Total Economic Output | $103,456 | $2,144,903 | $6,530,700 | $4,642,287 | $336,080 | **$13,757,427** |
| % Difference from Alt. A | 0.0% | -73.4% | -73.5% | 0.0% | -13.4% | **-63.7%** |
| Total Labor Earnings | $21,844 | $909,897 | $563,574 | $940,072 | $93,508 | **$2,528,895** |
| % Difference from Alt. A | 0.0% | -73.4% | -73.6% | 0.0% | -13.5% | **-61.9%** |
| Average Jobs Per Year | 98 | 756 | 523 | 707 | 205 | **2,288** |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | -13.4% | **-60.9%** |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table O.5-6. REMI Results: Net Present Value (7% Discount Rate) by Program, 2016–2031, Alternative B (1,000s of 2014$)

| -- | Livestock Grazing (Billed Use)[1] | Oil and Gas Well Development[1] | Oil and Gas Production[2] | Coal and Soda Ash Production[1,3] | Recreation (High Visitation) [1] | Total BLM-Supported |
|---|---|---|---|---|---|---|
| Direct Economic Output | $67,019 | $1,413,039 | $2,315,364 | $2,678,866 | $239,495 | **$6,713,783** |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | -13.4% | **-60.6%** |
| Total Economic Output | $78,127 | $1,617,991 | $4,575,795 | $3,499,202 | $253,716 | **$10,024,830** |
| % Difference from Alt. A | 0.0% | -73.4% | -73.5% | 0.0% | -13.4% | **-63.2%** |
| Total Labor Earnings | $16,612 | $687,041 | $396,280 | $711,197 | $70,893 | **$1,882,023** |
| % Difference from Alt. A | 0.0% | -73.4% | -73.6% | 0.0% | -13.5% | **-61.6%** |
| Average Jobs Per Year | 98 | 756 | 523 | 707 | 205 | **2,288** |
| % Difference from Alt. A | 0.0% | -73.3% | -73.5% | 0.0% | -13.4% | **-60.9%** |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Incorporates annual increases in production due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
FMR: Federal Mineral Royalties

## Table O.5-7. REMI Results: Total Economic Output by Program by Alternative (1,000s of 2014$)

| -- | Alt. A REMI Result | Alt. B REMI Result | Alt. A Difference from IMPLAN Result | Alt. B Difference from IMPLAN Result |
|---|---|---|---|---|
| **Annual Impact, 2016** | | | | |
| Livestock Grazing (Billed Use)[1] | $8,843 | $8,843 | -32% | -32% |
| Oil and Gas Development[1] | $668,110 | $177,988 | -4% | -4% |
| Oil and Gas Production[2] | $899,852 | $238,583 | 67% | 67% |
| Coal and Soda Ash Production[1,3] | $380,065 | $380,065 | -15% | -15% |
| Recreation (High Visitation)[1] | $32,733 | $28,342 | -9% | -9% |
| **Total BLM-Supported** | **$1,989,603** | **$833,821** | **15%** | **1%** |
| **Net Present Value, 2016–2031 (3% Discount Rate)** | | | | |
| Livestock Grazing (Billed Use)[1] | $103,456 | $103,456 | -37% | -37% |
| Oil and Gas Development[1] | $8,075,373 | $2,144,903 | -8% | -8% |
| Oil and Gas Production[1,3] | $24,646,868 | $6,530,700 | 65% | 65% |
| Coal and Soda Ash Production[1,3] | $4,642,287 | $4,642,287 | -18% | -18% |
| Recreation (High Visitation)[1] | $388,191 | $336,080 | -14% | -14% |
| **Total BLM-Supported** | **$37,856,174** | **$13,757,427** | **26%** | **10%** |
| **Net Present Value, 2016–2031 (7% Discount Rate)** | | | | |
| Livestock Grazing (Billed Use)[1] | $78,127 | $78,127 | -37% | -37% |
| Oil and Gas Development[1] | $6,090,314 | $1,617,991 | -7% | -8% |
| Oil and Gas Production[4] | $17,268,726 | $4,575,795 | 65% | 65% |
| Coal and Soda Ash Production[1,3] | $3,499,202 | $3,499,202 | -18% | -18% |
| Recreation (High Visitation)[1] | $293,054 | $253,716 | -14% | -14% |
| **Total BLM-Supported** | **$27,229,422** | **$10,024,830** | **25%** | **9%** |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
[4] Incorporates annual increases in production.

## Table O.5-8. REMI Results: Total Labor Earnings by Program by Alternative (1,000s of 2014$)

| -- | Alt. A REMI Result | Alt. B REMI Result | Alt. A Difference from IMPLAN Result | Alt. B Difference from IMPLAN Result |
|---|---|---|---|---|
| **Annual Impact, 2016** | | | | |
| Livestock Grazing (Billed Use)[1] | $1,870 | $1,870 | -58% | -58% |
| Oil and Gas Development[1] | $277,766 | $73,752 | 13% | 13% |
| Oil and Gas Production[2] | $79,990 | $21,205 | 84% | 85% |

| -- | Alt. A REMI Result | Alt. B REMI Result | Alt. A Difference from IMPLAN Result | Alt. B Difference from IMPLAN Result |
|---|---|---|---|---|
| Coal and Soda Ash Production[1,3] | $77,420 | $77,420 | -2% | -2% |
| Recreation (High Visitation)[1] | $9,106 | $7,884 | 16% | 16% |
| **Total BLM-Supported** | **$446,152** | **$182,131** | **18%** | **9%** |
| **Net Present Value, 2016–2031 (3% Discount Rate)** | | | | |
| Livestock Grazing (Billed Use)[1] | $21,844 | $21,844 | -61% | -61% |
| Oil and Gas Development[1] | $3,426,290 | $909,897 | 11% | 11% |
| Oil and Gas Production[4] | $2,133,314 | $563,574 | 78% | 77% |
| Coal and Soda Ash Production[1,3] | $940,072 | $940,072 | -5% | -5% |
| Recreation (High Visitation)[1] | $108,059 | $93,508 | 10% | 10% |
| **Total BLM-Supported** | **$6,629,578** | **$2,528,895** | **22%** | **11%** |
| **Net Present Value, 2016–2031 (7% Discount Rate)** | | | | |
| Livestock Grazing (Billed Use)[1] | $16,612 | $16,612 | -61% | -61% |
| Oil and Gas Development[1] | $2,587,695 | $687,041 | 12% | 11% |
| Oil and Gas Production[4] | $1,499,628 | $396,280 | 78% | 78% |
| Coal and Soda Ash Production[1,3] | $711,197 | $711,197 | -4% | -4% |
| Recreation (High Visitation)[1] | $81,926 | $70,893 | 11% | 11% |
| **Total BLM-Supported** | **$4,897,058** | **$1,882,023** | **22%** | **11%** |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
[4] Incorporates annual increases in production.

## Table O.5-9. REMI Results: Total Employment by Program by Alternative

| -- | Alt. A REMI Result | Alt. B REMI Result | Alt. A Difference from IMPLAN Result | Alt. B Difference from IMPLAN Result |
|---|---|---|---|---|
| **Annual Impact, 2016** | | | | |
| Livestock Grazing (Billed Use)[1] | 115 | 115 | -13% | -13% |
| Oil and Gas Development[1] | 3,106 | 829 | -10% | -10% |
| Oil and Gas Production[2] | 953 | 253 | 75% | 75% |
| Coal and Soda Ash Production[1,3] | 809 | 809 | -19% | -19% |
| Recreation (High Visitation)[1] | 274 | 237 | -16% | -16% |
| **Total BLM-Supported** | **5,256** | **2,244** | **-3%** | **-9%** |

[1] Assumes constant annual activity level (based on available data).
[2] Would rise each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators. Net present value is not applicable for employment.

# O.6 DISCUSSION

## O.6.1 General Comparisons

Some amount of difference between the REMI and IMPLAN results is to be expected. As shown in Table O.5-7 through Table O.5-9 for the key economic indicators of total economic output, total labor earnings, and total employment, the differences between the REMI and IMPLAN results are generally not large. There are no "order of magnitude" differences. In most cases, the estimates are within 25%, which is very reasonable given the many considerations involved in economic impact modeling. The greatest differences are for grazing and oil and gas production. These may be explained by methodological factors described below rather than any inherent "error" in either model.

Different from a standard static input-output model like IMPLAN, REMI P+ is a dynamic policy analysis model with forecasts and simulations generated on an annual basis to include behavioral responses to, or interactions among, wage, price, and many other economic factors. The dynamic modeling framework forecasts how changes in the economy and adjustment to these changes will occur on a year by year basis. The dynamic aspects are best illustrated graphically, and the following figures and discussion illustrate these aspects for oil and gas development. The same positive or negative slope of the graphed REMI line for each economic indicator pertains across all the resource uses, with one exception. The only exception is for oil and gas production. For this resource use only, the direct impact used as the input to the model – in this case, total sales value of oil and gas – changes every year. Specifically, it increases every year because more wells come into production. This increase overwhelms some of the trends described below.

REMI assumes labor productivity (economic output per job) increases over time for all sectors of the economy (Figure O.6-1). Accordingly, given the constant annual inputs in this EIS for all activities except oil and gas production, the results show decreases in employment impacts each year for the whole forecasting period (Figure O.6-2 for direct employment, and Figure O.6-3 for total employment). The impacts on total earnings also generally decline as measured in constant dollars (Figure O.6-4), but the AEPJ always increase due to competition for labor and efficiency gains in business operations, which together motivate or allow employers to increase wages (Figure O.6-5). However, the impacts to total economic output always decline at a decreasing rate during the first half of the forecasting period (Figure O.6-6), but then stabilize. The possible reason is that the model assumes there are more economic activities at the early stages after an economic input change (in spite of the adjustments made in the modeling approach to better reflect a contribution analysis rather than a shock analysis), either through supply chain effects or local consumption demand.

The following subsections address the differences in results for specific resources uses (as shown in Table O.5-7 through Table O.5-9 above), and possible explanations for differences. In these discussions, any difference of 25% or less is considered "close" given the many considerations involved in economic impact modeling. Nonetheless, possible factors affecting the respective model results are addressed for all resource uses.

**Figure O.6-1. Direct Labor Productivity (Output/Job) for Oil and Gas Development, REMI and IMPLAN (2014$)**

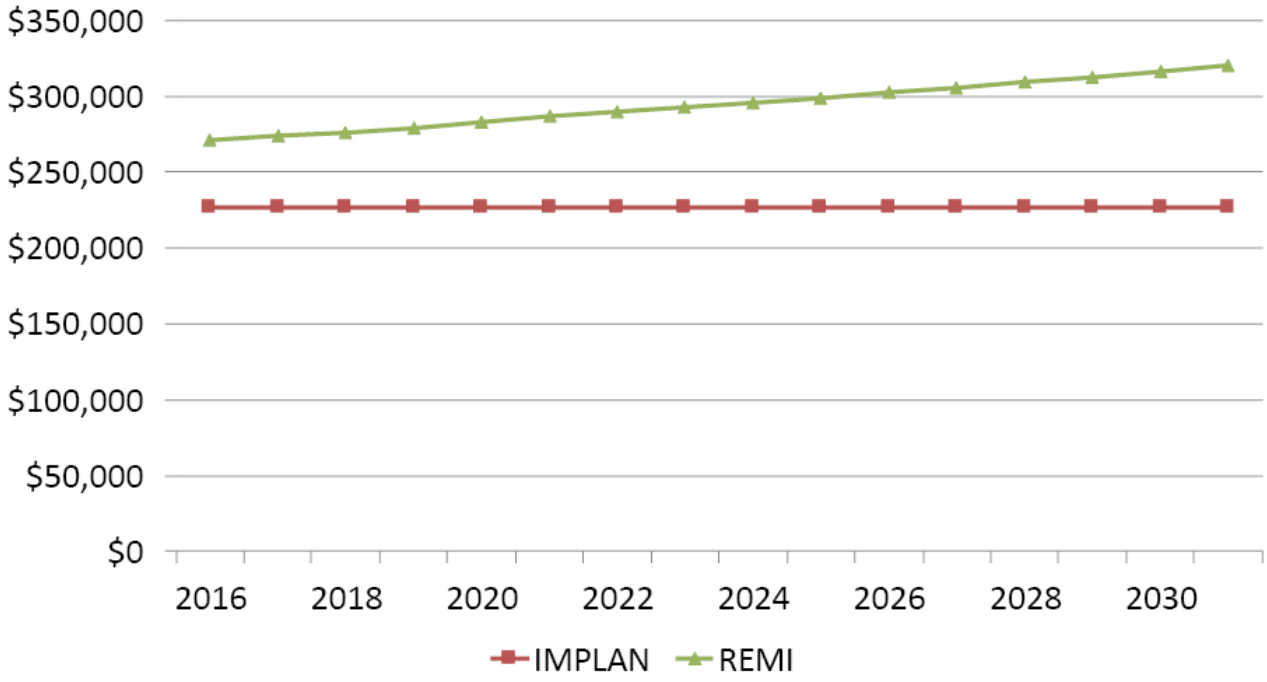



**Figure O.6-2. Direct Employment (Jobs) for Oil and Gas Development, REMI and IMPLAN**

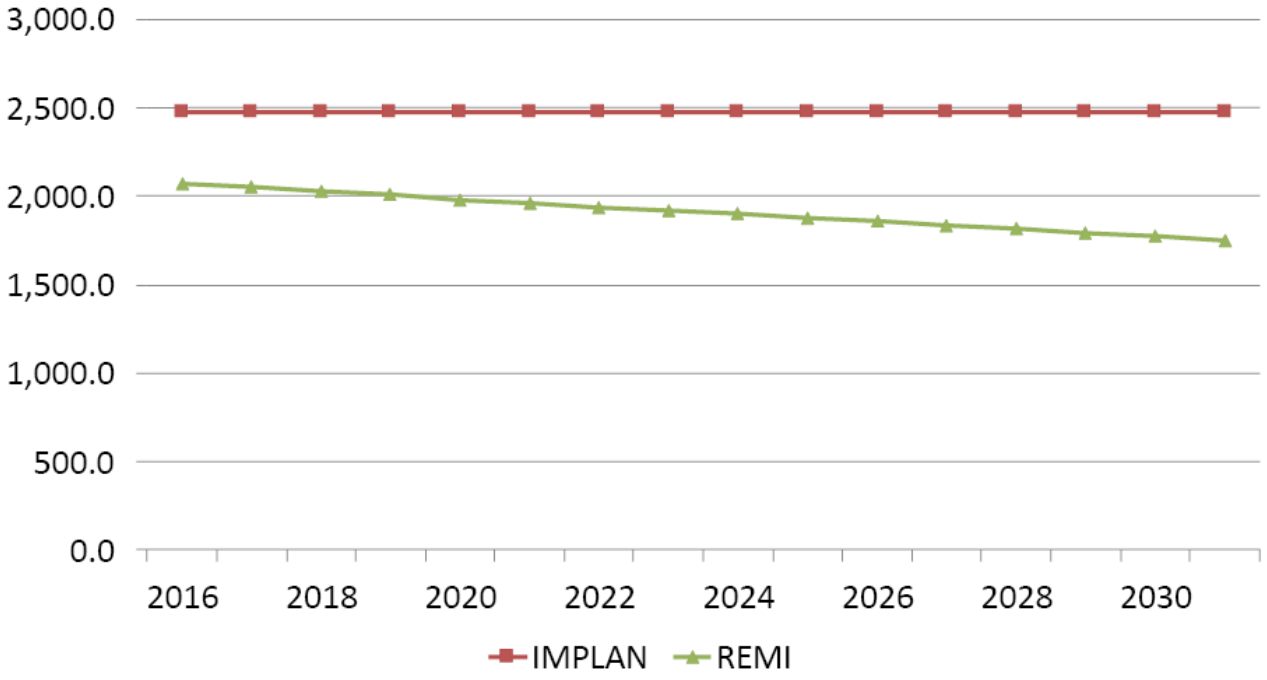


**Figure O.6-3. Total Employment (Jobs) for Oil and Gas Development, REMI and IMPLAN**

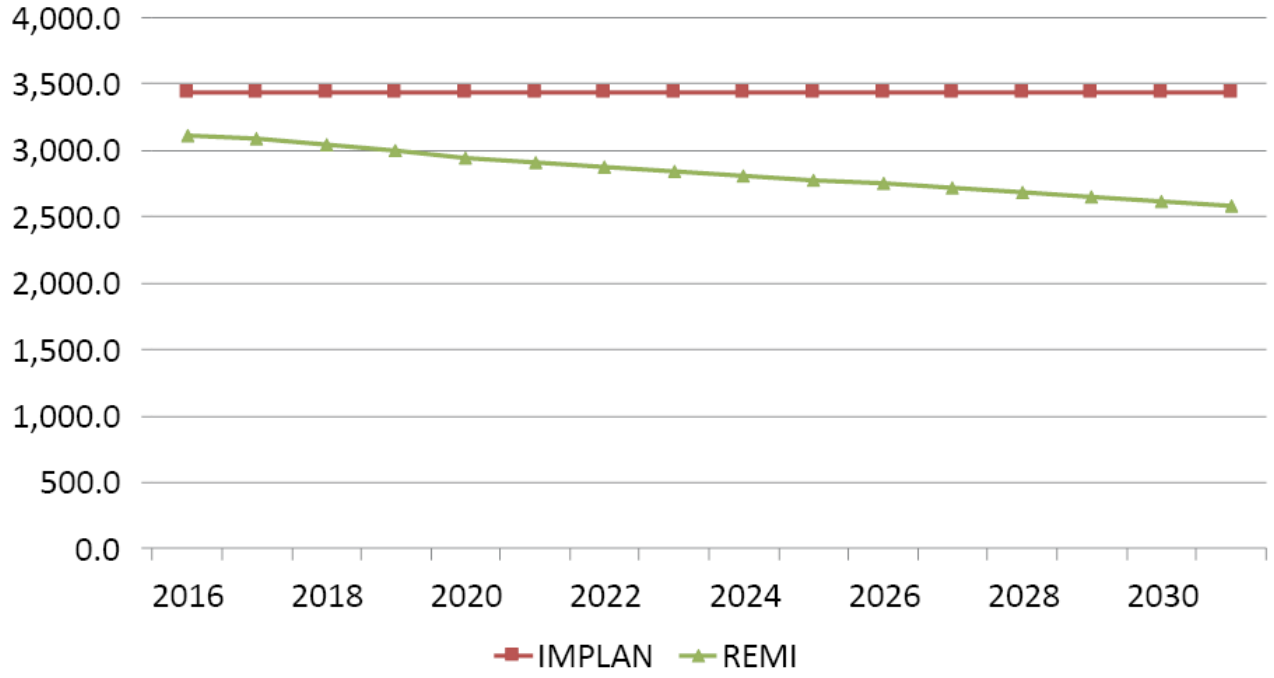



**Figure O.6-4. Total Earnings for Oil and Gas Development, REMI and IMPLAN (2014$)**

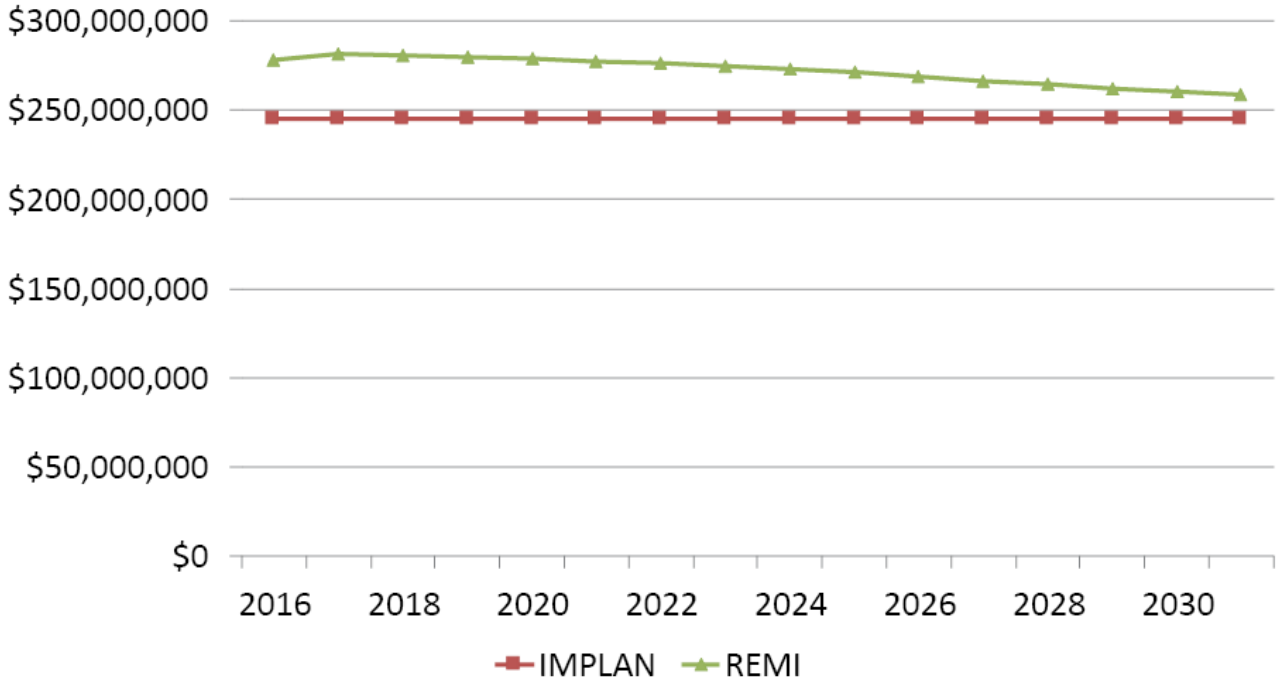


**Figure O.6-5. Average Total Earnings per Job for Oil and Gas Development, REMI and IMPLAN (2014$)**

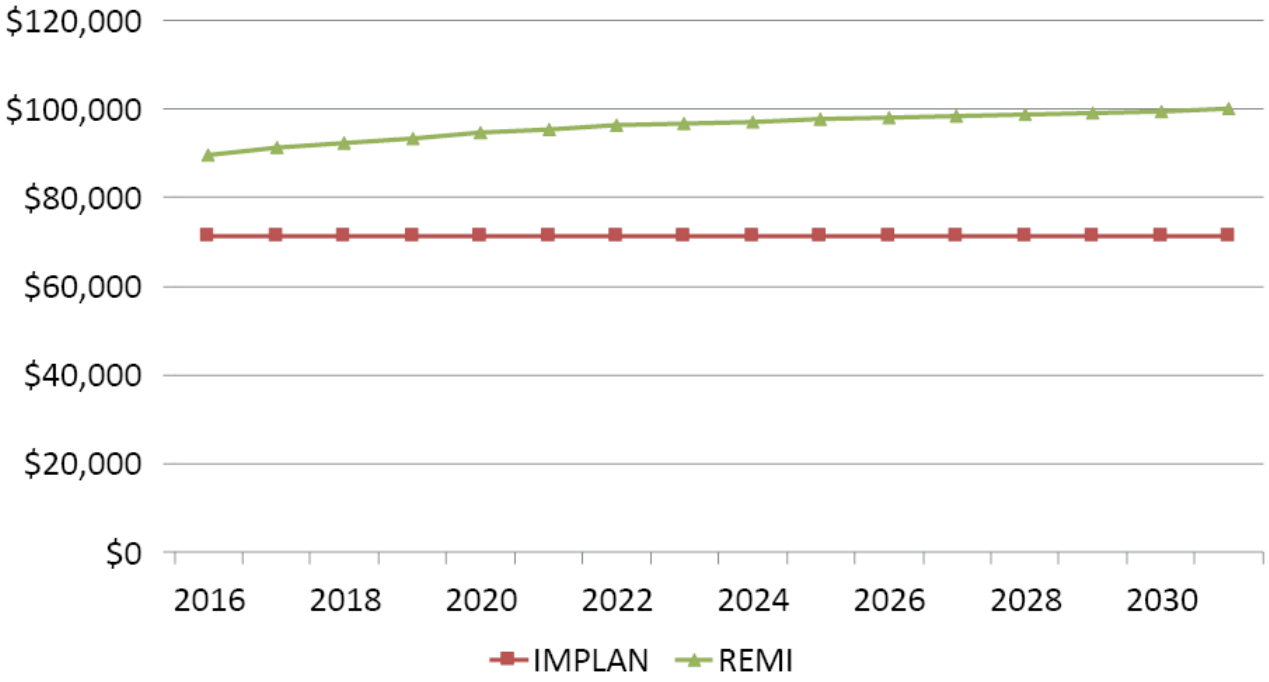
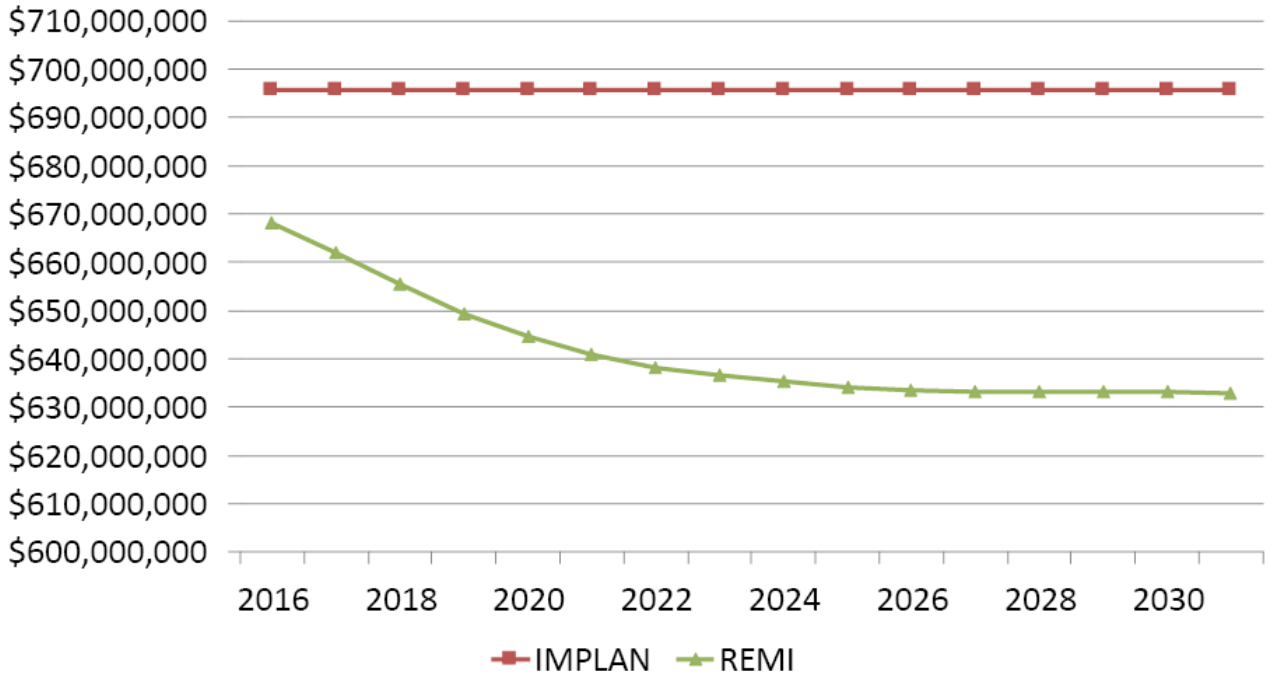



**Figure O.6-6. Total Output for Oil and Gas Development, REMI and IMPLAN (2014$)**




## Recreation

The REMI and IMPLAN results for recreation were close (within 25%) across all three economic indicators (total output, total earnings, and total employment).

Mapping of inputs to different sectors in the two models may be an important source of differences in the results. For example, gasoline is an expenditure category in the NVUM data, and IMPLAN has a specific industry sector for Gasoline Stations. This expenditure category/industry has the largest amount of spending in the NVUM data, comprising 32.6% of the total expenditures. The REMI model does not have a specific industry sector for gasoline stations. Therefore, the REMI analysis had to lump gasoline expenditures into a sector for Other Retail. It is highly likely that the economic relationships within the model for that generalized sector do not closely match the relationships that pertain to Gasoline Stations specifically. For instance, labor productivity and AEPJ probably differ, which would affect the employment and earnings results.

## Grazing

The total annual employment estimated by the two models for livestock grazing was close (13% less in REMI). The estimates for total output and total earnings were further apart (annually, 32% less in REMI for total output, and 58% less in REMI for total earnings).

Neither model has a specific sector for cattle ranching. IMPLAN has a sector titled "Cattle Ranching and Farming," but this sector includes feedlots and dairy cattle operations. Given the broad scope of this sector, and because cattle ranching budgets specific to cattle operations that use public lands as an important production input are available from the universities of Wyoming and Idaho, the IMPLAN analysis uses "analysis by parts" methodology, which means allocating the value of production to other specific industries based on the break-down of a typical ranch operation budget drawn from the economic literature, as described in Appendix N.

The REMI model owned by the State does not have enough granularity to allow for analysis by parts methodology. Therefore, in the REMI analysis the value of production was allocated to a combined crop production and animal production sector. The parameters (economic relationships) of this generalized sector in the REMI model may not match very well with the actual economic relationships specific to cattle ranching in Wyoming or the results of the analysis by parts methodology in IMPLAN.

In addition, analysis of economic impacts in agriculture is always challenging because farm sector earnings are very volatile (highly variable each year). In fact, net farm earnings are sometimes negative. Economic models must make adjustments to account for volatility in order to make reasonable projections. The two models probably make different assumptions about how to handle this issue.

## Coal and Trona (Soda Ash)

For coal and trona, the IMPLAN and REMI results were close for total output and total earnings. The specific numbers cannot be released due to their potential to reveal proprietary data. The results for direct and total employment were somewhat further apart, but still not remarkably so.

For coal, a possible source of differences lies in the AEPJ and employment multipliers. REMI used a higher AEPJ than IMPLAN and had a higher multiplier. The AEPJ in the coal industry itself (direct impact) would be high, but if the industry supports a large number of jobs in other industries, which would have lower wages, it is not clear why the total AEPJ is as high as it is according to REMI.

A likely source of differences in results for the trona and soda ash industry is a difference in accounting for the linkage between the mining and processing segments of trona/soda ash production. The industry is vertically integrated across these segments. Input-output models assume separation between industries, and the purchase coefficients are calibrated accordingly. Therefore, the methodology for IMPLAN included breaking the link between these segments. Specifically, the soda ash revenue was entered into the IMPLAN model, Sector 164, Other Basic Inorganic Chemical Manufacturing to estimate the total economic impact of soda ash production. The total economic impact of trona mining was estimated separately by entering

only the trona mining revenue into the IMPLAN model, Sector 33, Potash, Soda, and Borate Minerals, after removing the linkage between Sector 164 and Sector 33 from the Sector 164 industry production account in the IMPLAN model. Removing the linkage eliminates double-counting of the impacts from trona revenue. For REMI, only one industry sector, Other Basic Inorganic Chemical Manufacturing (NAICS code 325180), was applicable to inputs for the combined trona/soda ash industry. Thus, the linkage in the vertically integrated trona/soda industry could not be directly addressed. In addition, the higher-level sector used for REMI's results outputs represents a much broader industry than the two specific sectors used in IMPLAN, and therefore the economic relationships between the more generic industry and its supporting industries are different from the relationships between the two industries used in IMPLAN and their supporting industries.

## Oil and Gas Development

The REMI and IMPLAN results for oil and gas development were close (within 25%) across all three economic indicators (total output, total earnings, and total employment). This may reflect the fact that the input sectors available in both models were identical. It is also notable that other "intermediate" indicators reviewed by the modeling team – multipliers, AEPJ, and labor productivity – were all close between the two models.

## Oil and Gas Production

As shown in the results tables above, the differences between the REMI and IMPLAN results were greatest for oil and gas production. These differences may be attributable to methodology and data source considerations.

Both REMI and IMPLAN "out of the box" use data from the BEA to quantify the total number of local jobs in each industry, including the Oil and Gas Extraction sector. However, the BEA employment data for this sector is known to be artificially inflated because it includes large numbers of sole proprietors in this sector. This is probably because it counts individual people who receive royalties or rents from oil and gas companies as sole proprietorships and therefore as workers in this sector. But most of the actual jobs in this sector are wage jobs provided by medium and large-sized oil and gas extraction corporations. People who receive royalties or rents only because they own mineral estate are not actually laborers in the sector. Therefore, prior to impact analysis both models require calibration of this sector to reduce potential errors from the large number of sole proprietors included in the BEA data.

The calibrations of the Oil and Gas Extraction sector for the two models in this study used different methodologies for what was adjusted and how, and different data sources for the adjustments. The calibration for IMPLAN was based on data from the BLS. The BLS data does not include sole proprietors who are not actually laborers. The calibration for REMI used data from the U.S. Census Bureau's Economic Census, which is also more accurate than the BEA data with respect to sole proprietors. These two data sources are based on different time periods. This is a potential issue because the price of oil and gas has varied considerably in recent years. Thus, even with a roughly constant level of production, the total sales value (output) of the Oil and Gas Extraction sector can vary significantly from year to year. Thus, the two calibrated models may have very different figures for economic parameters such as labor productivity (output per worker).

In short, for oil and gas production, both models were adjusted to address an important known issue, but there were several key differences – in methodology and in data sources – that could have still resulted in the differences between the results.

## Conclusions

Based on the reasonable effort made toward an apples-to-apples comparison in this REMI Pilot Project, the differences in results between the IMPLAN and REMI models are not so great that they would lead to different management decisions (selection of a different preferred alternative) if REMI were used for the economic analysis instead of IMPLAN. They do not tell decisively different economic stories about the nature of the local economy or the alternatives.

While the results for most of the resource uses were reasonably close, one might ask why the larger differences for the livestock grazing and oil and gas production results are not decisive. There are at least two answers to this question.

First, when evaluating the economic differences between alternatives, it is the relative differences between the alternatives that are most important, not the absolute dollars or job numbers. This is in part because all economic models are imperfect in their characterization of an economy, and economic conditions change in any case, so the actual numerical results in the future are likely to differ from the forecasts of any particular model. However, each model is internally consistent, so any imperfections will at least be consistently applied across the alternatives. Therefore, the relative differences in the model results across alternatives are of greater interest for decision making than the absolute levels of output, earnings, or jobs predicted for each alternative. Clearly, the differences between Alternatives A and B from either the IMPLAN or REMI model are much greater than the difference between the results. That is, both models show that the economic indicators for Alternative B are well more than 50% less than the values of the indicators for Alternative A, whereas the predicted differences from the REMI model are just a few percentage points higher than the differences predicted by the IMPLAN model when evaluated across all resource uses, and are almost exactly the same when evaluated for each specific resource use.[3] Either model leads to the same understanding of the large differences in the economic impacts of Alternatives A and B.

Second, economic impacts measurable in models such as REMI and IMPLAN are only one factor that the BLM must take into account in making land use decisions. Other factors are equally or more important, such as the degree to which each alternative meets the various and many management goals and policies that the BLM must address in making land use decisions.

The REMI Pilot Project has also produced a number of observations about the nature of the REMI and IMPLAN models and considerations in the modeling process. Here are some of the observations of the project team:

- REMI is useful for showing how an economy is a dynamic entity. The kinds of dynamics described briefly in Section O.6.1 are almost certainly a more realistic way of portraying an economy over a long planning period than the application of a static model like IMPLAN. However, for the reasons noted above, employing a dynamic model does not necessarily provide more useful or accurate results for the purposes of the BLM land use planning process.[4]
- Careful calibration of either model is required. Both models "out of the box" have some features that are not accurate for the southwest Wyoming economy. This is almost certainly true for other locations in the western United States.
- Differences in definitions of study area geographies are of interest, but depending on context are probably not that important to the results. In this particular case, the IMPLAN model was specified

[3] *Another way of putting this is that it is the model inputs that are decisive, not the selection of the model. When one "turns the crank" on each model, the differences in results largely trace to the differences in the inputs, not the workings of the models. The physical outputs of the uses of BLM-administered land are equal for both models, and the direct economic impacts, which are estimated outside of the models, are equal as well.*

[4] *REMI is also a considerably more expensive model to obtain, and many fewer socioeconomic analysts within and outside of the BLM have the expertise necessary to use it properly.*

and applied for a combined area consisting of the five counties of the socioeconomic study area. The BLM considered this approach efficient and adequate for the purposes of the RMP/EIS analysis. The REMI model owned by the State could only be applied at the level of each county. This created extra work in specifying the inputs as the county level, and in aggregating the results for comparison to the IMPLAN results. The project team did some tests to determine the sensitivity of the results to the county-level disaggregation (for instance, putting all inputs into Sweetwater County only vs. distributing them to the five counties based on the best available information for making the distribution). The tests indicated that the REMI results were not very sensitive to the county-level distribution of the inputs.

- Differences in industrial sector definitions between the two models may be very important. For instance, REMI does not have the degree of sector granularity to allow use of analysis by parts methodology for the livestock grazing analysis. This meant that the REMI analysis had to use a higher-level sector for the inputs, and the economic relationships of that sector to other sectors in the economy may not reflect actual relationships of cattle ranching operations to other sectors of the southwest Wyoming economy. In addition, not being able to apply the analysis by parts methodology for livestock grazing meant that local data (from the universities of Wyoming and Idaho) specific to cattle ranching in the region could not be applied in the REMI analysis. The recreation analysis provides another example. Gasoline stores are one of the larger expenditure categories for recreation-related expenditures. This could be directly addressed in the IMPLAN model by using an industrial sector specific to gasoline stores, but in the REMI model expenditures at gasoline stores had to be lumped in with expenditures for several other types of retail establishments.
- REMI is more of a "black box" model. Not all of the modeling issues that emerged in this pilot project could be resolved in this demonstration project. Because of the REMI model's complexity, it is harder to "get under the hood" to make manual changes to calibrate the model for the local economy. In addition, some of the changes that are routinely made in use of the IMPLAN model simply cannot be made in the REMI model.

In summary, the REMI Pilot Project has been a revealing trial of a model not usually used by the BLM. It has highlighted the importance of a number of specific considerations in the economic impact modeling process. The BLM will be able to make use of these considerations in future impact modeling, whatever impact model is used.

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# APPENDIX P—AIR QUALITY TECHNICAL SUPPORT DOCUMENT

## P.1 INTRODUCTION

This Air Quality Technical Support Document describes the processes used to conduct the air quality impact assessment and provides summaries of relevant analysis data. This document served as the basis for air quality impact analyses of all alternatives. The contents of this document are:

- Climate Resources
- Regulatory Framework
- Thresholds of Significance
- Air Quality Impact Analysis
- Emission Calculations
- Resources and References

## P.2 CLIMATE RESOURCES

Climate is the combination of temperature, humidity, atmospheric pressure, wind, precipitation, and other meteorological characteristics over a long period of time in a specific region. Climate differs from weather, which is the present condition of these characteristics and their variations over shorter periods. Climate change involves long-term trends indicating a noticeable shift in climate. Primary climate indicators that can be monitored include ambient air temperature, atmospheric pressure, wind, relative humidity, precipitation amounts and timing, annual snowpack levels, streamflow volume and timing, and solar radiation.

The planning area is buffeted by high to moderate predominant westerly winds with low precipitation and relative humidity. Climate in the planning area is designated as temperate, semi-arid with long cold winters and warm summers. Table P-1, Rock Springs Station Temperature and Precipitation Data, details the average, maximum, and minimum mean temperate and annual total precipitation for the Rock Springs area.

**Table P-1. Rock Springs Station Temperature and Precipitation Data (2007 to 2017)**

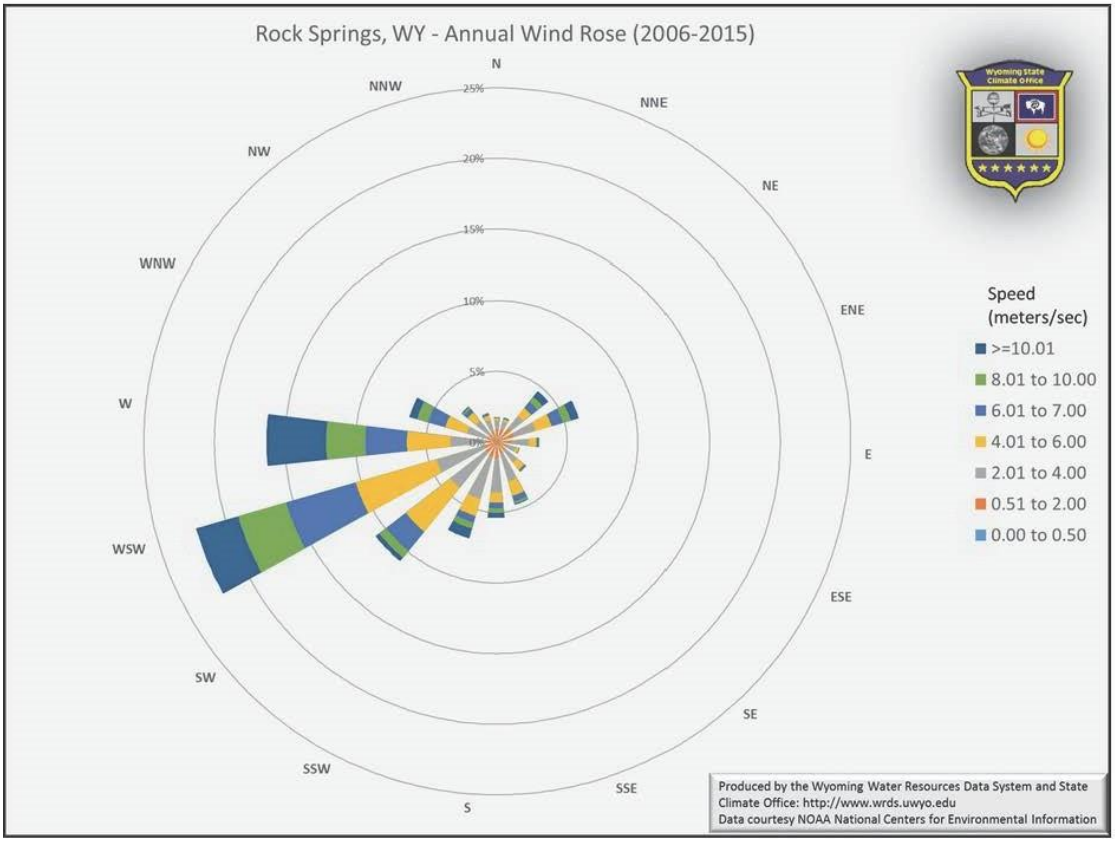
| Year | Total Precipitation (inches) | Average Mean Temperature* | Mean Maximum Temperature* | Mean Minimum Temperature* |
|---|---|---|---|---|
| 2007 | 7.15 | 45.0 | 57.3 | 32.7 |
| 2008 | 6.05 | 41.9 | 53.8 | 29.9 |
| 2009 | 8.11 | 42.7 | 54.8 | 30.7 |
| 2010 | 7.17 | 43.2 | 55.3 | 31.1 |
| 2011 | 8.73 | - | - | - |
| 2012 | 3.15 | 47.2 | 59.9 | 34.5 |
| 2013 | 4.68 | 44.0 | 55.8 | 32.3 |
| 2014 | 4.25 | 45.4 | 57.4 | 33.3 |
| 2015 | 8.63 | 45.9 | 57.6 | 34.2 |

| Year | Total Precipitation (inches) | Average Mean Temperature* | Mean Maximum Temperature* | Mean Minimum Temperature* |
|---|---|---|---|---|
| 2016 | 7.46 | 44.8 | 56.5 | 33.0 |
| 2017 | 5.59 | 45.0 | 56.8 | 33.2 |

* degrees Fahrenheit
Source: National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) https://www.ncdc.noaa.gov/cdo-web/

The daily annual wind speed average is 11.4 mph with a high to moderate prevailing westerly winds (Western Regional Climate Center, 2009). Air quality in the area is influenced by high winds that can transport air pollutants and dust from industrial sources and metropolitan areas from the west. The predominant wind direction near Rock Springs is from the west-southwest as shown in Figure P-1.

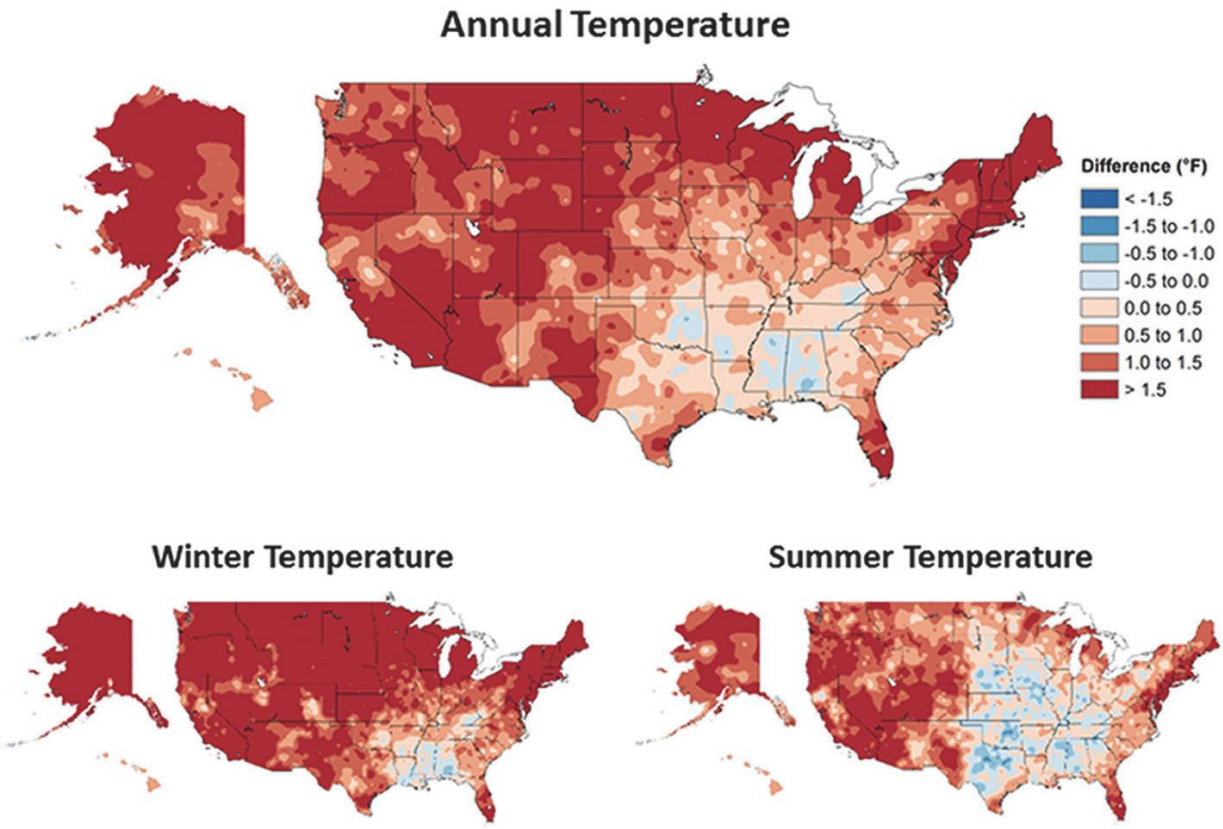
**Figure P-1. Rock Springs Wind Rose**




Future predicted climate maps include the following:

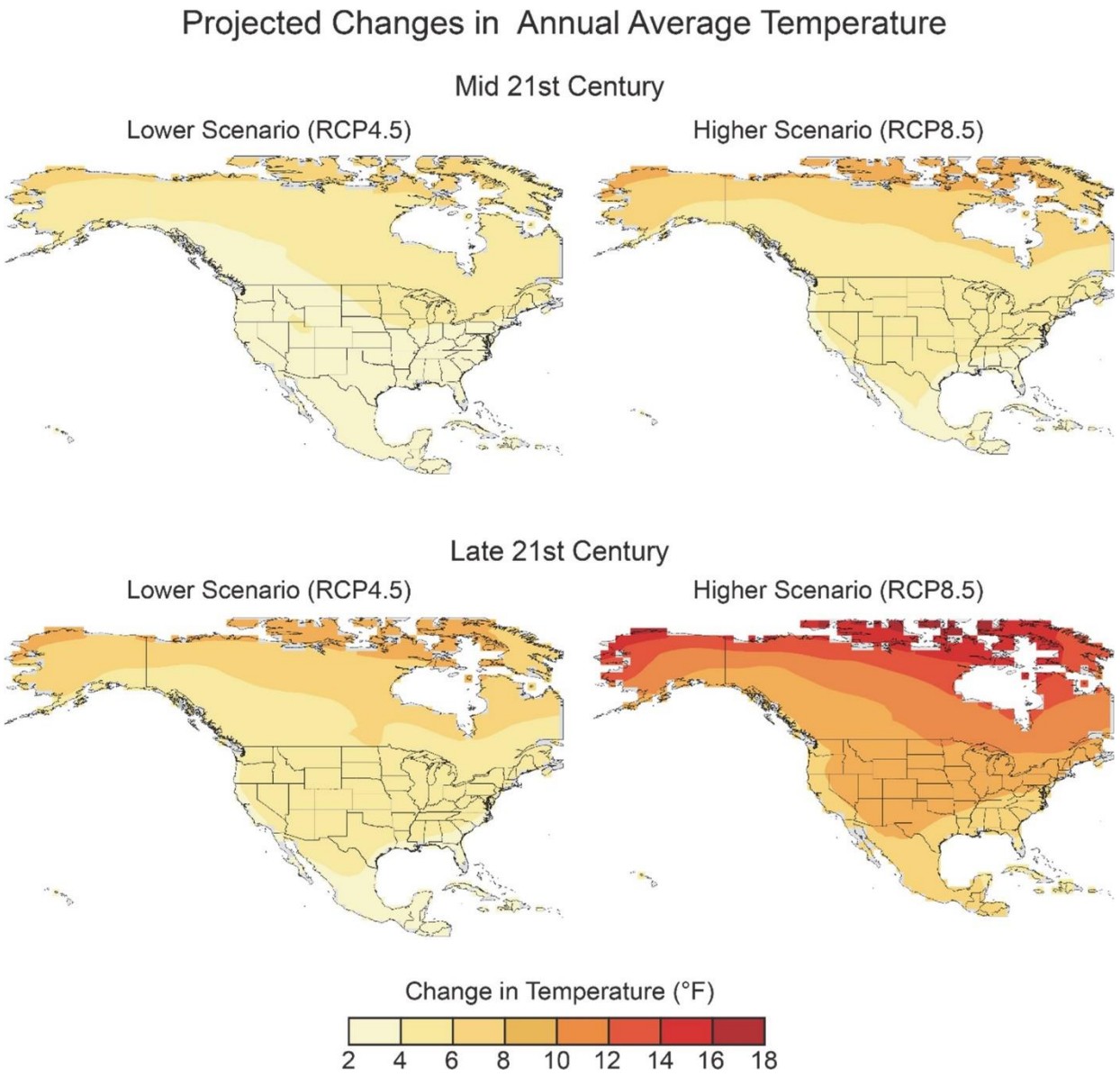
- Figure P-2. Observed Changes in Annual, Winter and Summer Temperatures (degrees Fahrenheit)
- Figure P-3. Projected Changes in Annual Average Temperature in North America (degrees Fahrenheit)
- Figure P-4. Projected Changes in the Number of Days Per Year with a Maximum Temperature Above 90°F and a Minimum Temperature Below 32°F in the Contiguous United States.

**Figure P-2. Observed Changes in Annual, Winter and Summer Temperatures (degrees Fahrenheit)**



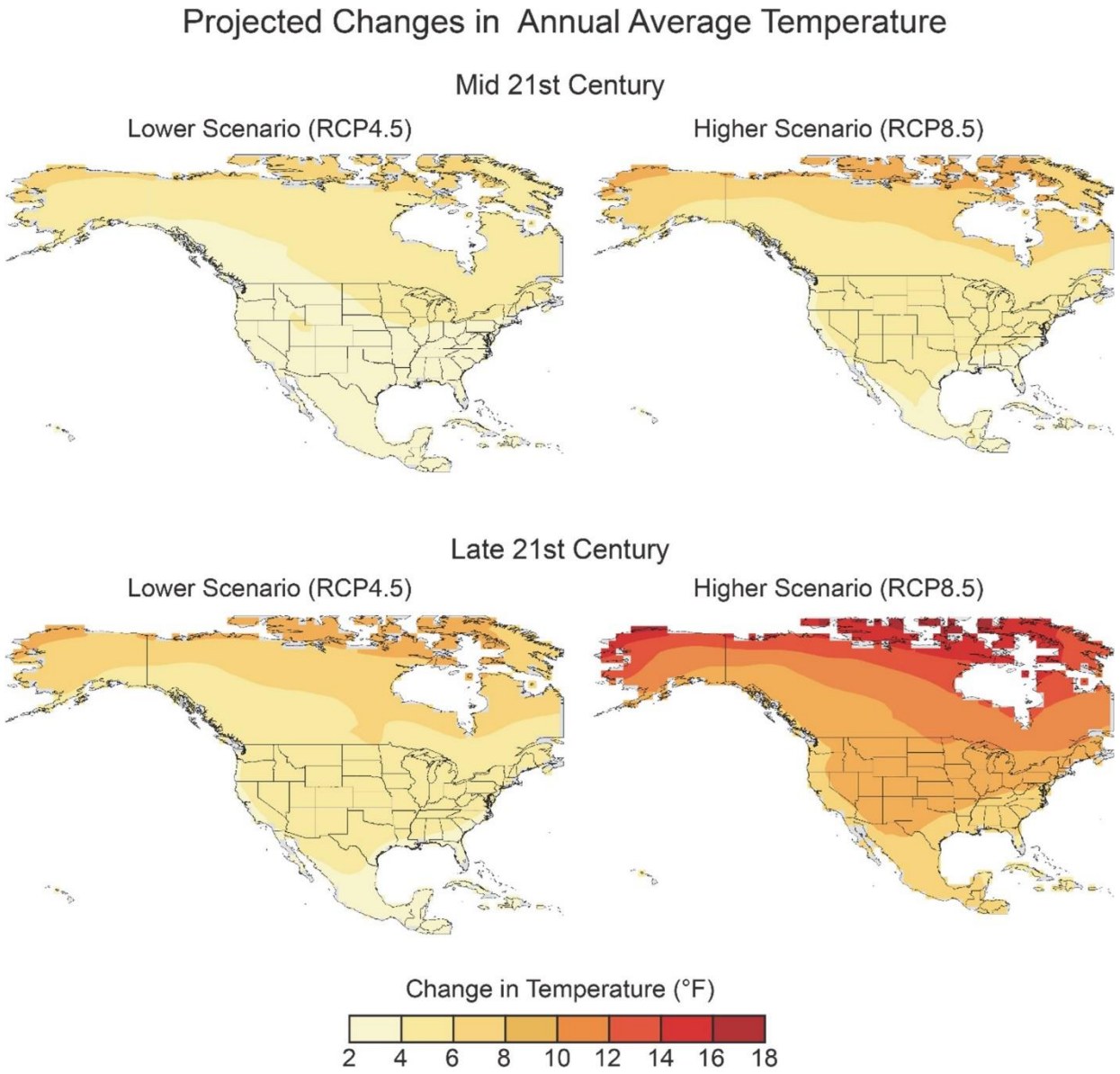

"Changes are the difference between the average for present-day (1986–2016) and the average for the first half of the last century (1901–1960 for the contiguous United States, 1925–1960 for Alaska and Hawaii). Estimates are derived from the ClimDiv dataset (Figure source: NOAA/NCEI)." (USGCRP, 2018)

**Figure P-3. Projected Changes in Annual Average Temperature in North America (degrees Fahrenheit)**




"Changes are the difference between the average for mid-century (2036–2065; top) or late-century (2070-2099, bottom) and the average for near-present (1976–2005). Each map depicts the weighted multimodel mean. Increases are statistically significant in all areas (that is, more than 50% of the models show a statistically significant change, and more than 67% agree on the sign of the change). (Figure source: CICS-NC and NOAA NCEI)." (USGCRP, 2018)

**Figure P-4. Projected Changes in the Number of Days Per Year with a Maximum Temperature Above 90°F and a Minimum Temperature Below 32°F in the Contiguous United States**




"Changes are the difference between the average for mid-century (2036–2065) and the average for near-present (1976–2005) under the higher scenario (RCP8.5). Maps in the top row depict the weighted multimodel mean whereas maps on the bottom row depict the mean of the three warmest models (that is, the models with the largest temperature increase). Maps are derived from 32 climate model projections that were statistically downscaled using the Localized Constructed Analogs technique. Changes are statistically significant in all areas (that is, more than 50% of the models show a statistically significant change, and more than 67% agree on the sign of the change). (Figure source: CICS-NC and NOAA NCEI)." (USGCRP, 2018)

# P.3 REGULATORY FRAMEWORK

For quantitative analysis, the air quality criteria in Section P.4 apply. Although the criteria listed below do not apply to the qualitative analysis presented in this final environmental impact statement (EIS), they are identified here for reference purposes. The basic framework for controlling air pollutants in the United States is mandated by the 1970 Clean Air Act (CAA) and its amendments, Environmental Protection Agency (EPA) regulations, including the 1999 Regional Haze Regulations, and state and local regulations. The CAA addresses criteria air pollutants, federal standards, and the Prevention of Significant Deterioration (PSD) program. The Regional Haze Regulations address visibility impairment. EPA regulations address ambient air quality standards for criteria pollutants, emission control technology, air quality monitoring, and State Implementation Plan (SIP) development (which may include air quality modeling and regulations), and air quality related value (AQRV) analyses related to regional haze.

## P.3.1 Ambient Air Quality Constituents

Air pollutants addressed in this study include criteria pollutants, hazardous air pollutants (HAP), which could cause visibility impairment (regional haze) or atmospheric deposition impacts, and greenhouse gases.

## P.3.2 Criteria Pollutants

Criteria pollutants are those for which national standards of concentration have been established. Ambient air concentrations of these constituents greater than the standards represent a risk to human health. Criteria pollutants include carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), ozone ($O_3$), particulate matter ($PM_{10}$ and $PM_{2.5}$), and lead (Pb).

- **Carbon Monoxide.** CO is an odorless, colorless gas formed during any combustion process, such as operation of engines, fireplaces, and furnaces. High concentrations of CO affect the oxygen-carrying capacity of the blood and can lead to unconsciousness and asphyxiation. Wildfires are a natural source of CO.
- **Nitrogen Dioxide.** $NO_2$ is a red-brown gas formed during operation of internal combustion engines. Engines emit a mixture of nitrogen gases, collectively called nitrogen oxides ($NO_x$). $NO_x$ can contribute to brown cloud conditions and can convert to ammonium nitrate particles and nitric acid, which can cause visibility impairment and acid rain. Bacterial action in soil can be a natural source of nitrogen compounds.
- **Sulfur Dioxide.** $SO_2$ forms during combustion from trace levels of sulfur in coal or diesel fuel. It can convert to ammonium sulfate ($(NH_4)_2SO_4$) and sulfuric acid ($H_2SO_4$), which can cause visibility impairment and acid rain. Volcanoes are natural sources of $SO_2$. Anthropogenic sources include refineries and power plants.
- **Ozone.** $O_3$ is a faint blue gas that is generally not emitted directly into the atmosphere but is formed from the reaction of $NO_x$ and volatile reactive organic compound (VOC) emissions in the presence of sunlight. Internal combustion engines are the main source of $NO_x$. Volatile organic compounds, like terpenes, are very reactive. Sources of VOCs include, but are not limited to, paint, varnish, and some types of vegetation. The faint acrid smell common after thunderstorms is caused by ozone formation by lightning. $O_3$ is a strong oxidizing chemical that can burn lungs and eyes, and damage plants.
- **Particulate Matter.** Particulate matter (e.g., soil particles, hair, pollen) is essentially small particles suspended in the air that settle to the ground slowly and may be resuspended if disturbed. Separate allowable concentration levels for particulate matter are based on the relative size of the particle:
  - $PM_{10}$ particles with diameters smaller than 10 micrometers are small enough to be inhaled and can cause adverse health effects.

  - $PM_{2.5}$ particles with diameters smaller than 2.5 micrometers are so small that they can be drawn deeply into the lungs and cause serious health problems. Particles in this size range are also the main cause of visibility impairment.

- **Lead.** Before the wide use of unleaded fuel for automobiles, lead particles were emitted from tailpipes. Lead is not considered in this EIS because no proposed projects are expected to emit lead. The lead standard is not addressed in this Technical Support Document because proposed projects will have no lead emission sources.

## Hazardous Air Pollutants

There are a wide variety of HAPs, including N-hexane, ethylbenzene, toluene, xylene, formaldehyde, and benzene. Although HAPs do not have ambient air quality standards associated with them, the EPA has issued reference concentrations (RfC) to evaluate the inhalation risk for cancerous and noncancerous health effects.

Although this EIS is a National Environmental Policy Act (NEPA) document and not a regulatory document, there are regulatory issues that should be taken into account in preparing this EIS and ensuing project-specific EISs. Actual regulation of HAPs is achieved through compliance with applicable maximum achievable control technology (MACT) standards and not through ambient air quality standards. Regulatory agencies implement control through section 112 programs, specifically section 112(g) case-by-case MACT determinations according to 40 Code of Federal Regulations (CFR) part 63, subpart B and section 112(d) MACT emission standards.

Any source that emits or has the potential to emit 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs is considered a major source and would require a Title V, part 70, operating permit review and permit. This may include either compliance with an applicable MACT emission standard or a case-by-case 112(g) MACT determination if the source is new or is the result of major modifications and no applicable MACT emission standard has been promulgated. Specific regulations that would apply in the planning area in 2018 include 40 CFR part 63 subpart HH National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities; 40 CFR part 63 subpart HHH, National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities; and 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This last regulation affects source categories using reciprocating engines for gas compression.

## Atmospheric Deposition Constituents

Sulfur and nitrogen compounds that can be deposited on terrestrial and aquatic ecosystems include nitric acid ($HNO_3$), nitrate ($NO_3^-$), ammonium ($NH_4^+$), and sulfate ($SO_4^{--}$). $HNO_3$ and $NO_3^-$ are not emitted directly into the air but form in the atmosphere from industrial and automotive emissions $NO_x$. $SO_4^{--}$ is formed in the atmosphere from industrial emission of $SO_2$. Deposition of $HNO_3$, $NO_3^-$, and $SO_4^{--}$ can adversely affect plant growth, soil chemistry, lichens, aquatic environments, and petroglyphs. $NH_4^+$ is primarily associated with feedlots and agricultural fertilization. Deposition of $NH_4^+$ can affect terrestrial and aquatic vegetation. While deposition may be beneficial as a fertilizer, it can adversely affect the timing of plant growth and dormancy.

## Greenhouse Gas Constituents

Greenhouse gases (GHG) are pollutants that are effective in preventing heat from escaping the earth's atmosphere and have been attributed to altering components of the earth's climate. These include carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$). Other identified GHGs, including hydroflourocarbons, perflourocarbons, and sulfur hexafluoride were not included in the analysis because

proposed activities are not sources of these pollutants and emissions are expected to be insignificant or zero. Major sources of GHG are from stationary and mobile fossil fuel combustion sources (i.e., transportation, consumption of coal and natural gas).

# P.4 THRESHOLDS OF SIGNIFICANCE

## P.4.1 Criteria Pollutants

The National Ambient Air Quality Standards (NAAQS) are health-based standards for the maximum concentration of air pollutants at all locations to which the public has access. The NAAQS are legally enforceable standards. Concentrations above the NAAQS represent a risk to human health. The EPA has developed standards for each pollutant for a specific averaging time. Short averaging times (1, 8, and 24 hours) address short-term exposure, while the annual standards address long-term exposure. Wyoming has also established its own State standards, the Wyoming Ambient Air Quality Standards (WAAQS).

Chapter 3 of the resource management plan (RMP) and EIS presents the National Primary Air Quality Standards (NAAQS) and the Wyoming Primary Air Quality Standards (WAAQS). Analyses of proposed alternatives for project-specific EISs compare cumulative concentrations of air pollutants to the NAAQS and WAAQS. The Bureau of Land Management (BLM) requires that all authorized activities comply with applicable local, state, tribal, and federal air quality laws, regulations, and standards. Analyses of proposed alternatives for project-specific EISs compare cumulative concentrations of air pollutants to the NAAQS and WAAQS. The BLM requires that all authorized activities comply with applicable local, state, tribal, and federal air quality laws, regulations, and standards.

## P.4.2 Prevention of Significant Deterioration

The goal of the Prevention of Significant Deterioration (PSD) program is to ensure that air quality in areas with clean air does not significantly deteriorate while maintaining a margin for future industrial growth. Under the PSD program, each area in the United States is classified by the air quality in that region according to the following system:

- PSD Class I Areas: Congressional mandated PSD Class I Areas with pristine air quality, such as wilderness areas, national parks, and some Native American reservations, are accorded the strictest protection. Only very small incremental increases in concentration are allowed in order to maintain the air quality in these areas.
- PSD Class II Areas: Essentially all areas that are not designated Class I are designated Class II. Moderate incremental increases in concentration are allowed, although the concentrations are not allowed to reach the concentrations set by Wyoming and federal standards (i.e., WAAQS and NAAQS).
- PSD Class III Areas: No areas have yet been designated Class III. Concentrations would be allowed to increase up to the WAAQS and NAAQS.

The incremental increases allowed for specific pollutants in Class I and Class II areas can be found in the Wyoming Air Quality Standards and Regulations (Wyoming Department of Environmental Quality [WDEQ] 2016). Comparisons of potential $PM_{10}$, $NO_2$, and $SO_2$ concentrations in NEPA air quality analyses with PSD concentrations are intended only to evaluate a threshold of concern and do not represent a regulatory PSD Increment Consumption analysis. Regulatory PSD Increment Consumption analyses are solely the responsibility of the State of Wyoming, which has been granted primacy (with EPA oversight).

In project-specific EISs, the BLM does not perform a regulatory PSD analysis. The PSD increments are used only as a reference to give the public a better understanding of the level of potential impact.

### Hazardous Air Pollutants

Section 112 of the CAA lists more than 180 chemicals as HAPs. In addition, Sections 112 (d) and 112(g) require regulatory agencies to establish MACT standards for sources that emit HAPs. Any source that emits or has the potential to emit 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs is considered a major source and will require a Title V, Part 70, operating permit review and permit. In addition to MACT standards, EPA has listed (on its Air Toxics Database) Reference Exposure Levels (REL) for many of the HAPs.

## P.4.3 Regional Haze Regulations

Visibility impairment in the form of regional haze obscures the clarity, color, texture, and form of what one sees. Haze-causing pollutants (mostly fine particles) are directly emitted into the atmosphere or are formed when gases emitted into the air form particles as they are carried downwind. Emissions from human-caused and natural sources can be carried great distances, contributing to regional haze. The Wyoming Department of Environmental Quality–Air Quality Division (WDEQ-AQD) submitted its Regional Haze State Implementation Plan (SIP), in accordance with 40 CFR Part 51.308 and Part 57.309, in January 2011 and approved by EPA March 2014.

Visual range, one of several ways to express visibility, is the greatest distance at which a person can distinguish a dark landscape feature from a light background like the sky. Without human-caused visibility impairment, natural visual range is estimated to average about 110–115 miles in the western United States and 60–80 miles in the eastern United States (Malm 1999). Visibility can also be expressed in terms of deciview (dv), a measure for describing perceived changes in visibility. One dv is defined as a change in visibility that is just perceptible to an average person.

The Regional Haze Regulations were developed by the EPA in response to the CAA Amendments of 1977 and 1990. They are intended to maintain visibility on the least impaired days and improve visibility on the most impaired days in mandatory Federal Class I areas across the United States, so that visibility in these areas is returned to natural conditions by 2064. These regulations require states to submit a regional haze SIP and progress reports to demonstrate reasonable progress toward the 2064 goal.

## P.4.4 Applicability to the Rock Springs Planning Area

Air pollution impacts are limited by local, state, tribal, and federal air quality regulations, standards, and implementation plans established under the CAA and administered by the WDEQ-AQD with oversight from the EPA. Air quality regulations require proposed new, or modified existing, air pollutant emission stationary sources (including oil and gas compression facilities) to undergo a permitting review before their construction can begin. Therefore, the WDEQ-AQD has the primary authority and responsibility to review permit applications and to require emission permits, fees, and control devices, before construction and/or operation.

Fugitive dust and exhaust from construction activities (road and well pad construction; oil or gas well drilling and completion), along with air pollutants emitted during operation (e.g., well operations, booster [field] and pipeline [sales] compressor engines), are potential causes of air quality impacts. These issues are more likely to generate public concern where natural gas development activities occur near residential areas or near PSD Class I and sensitive Class II areas. As described in Chapter 3, there are seven Class I areas in Wyoming, however there are no Class I areas located within the planning area. The planning area does intersect the 100-kilometer buffer with two Class I areas, see Chapter 3 for detailed information.

The U.S. Forest Service, National Park Service, and the U.S. Fish and Wildlife Service have also expressed concerns regarding potential atmospheric deposition (i.e., acid rain) and visibility impacts within downwind PSD Class I and sensitive Class II areas under their administration throughout Wyoming.

As explained in Chapter 3, the NAAQS and WAAQS are health-based standards for the maximum acceptable concentrations of air pollutants at locations to which the public has access. The analysis of the proposed alternatives must demonstrate continued compliance with all applicable local, state, tribal, and federal air quality standards. Existing air quality throughout the planning area is in compliance with most ambient air quality standards, as demonstrated by the relatively low concentration levels presented in the Analysis of the Management Situation. Currently, portions of Sweetwater County are still in nonattainment for the NAAQS and the WAAQS standards for 2008 Ozone. The U.S. Congress (through the CAA section 116) authorized local, state, and tribal air quality regulatory agencies to establish air pollution control requirements more (but not less) stringent than federal requirements. Also, under both the Federal Land Policy and Management Act (FLPMA) and the CAA, the BLM cannot authorize any activity that would not conform to all applicable local, state, tribal, and federal air quality laws, regulations, standards, and implementation plans.

Given the planning area's current air quality standards attainment status, future development projects that have the potential to emit more than 250 tons per year of any criteria pollutant (or certain listed sources that have the potential to emit more than 100 tons per year) would be required to undergo a site-specific regulatory PSD Increment Consumption analysis under the federal New Source Review permitting regulations. Development projects that require PSD permits may also be required by the applicable air quality regulatory agencies to incorporate additional emission control measures (including a best available control technology analysis and determination) to ensure protection of air quality resources, and to demonstrate that the combined impacts of all PSD sources will not exceed the allowable incremental air quality impacts for $NO_2$, $PM_{10}$, and $SO_2$. Minor sources with emissions below the cutoff rates mentioned above do not require PSD permits; nevertheless, their emissions contribute to increment consumption.

A regulatory PSD Increment Consumption analysis may be conducted as part of a New Source Review, or independently. The determination of PSD increment consumption is a legal responsibility of the applicable air quality regulatory agencies, with EPA oversight. In addition, an analysis of cumulative impacts resulting from all existing sources and the permit applicant's sources is also required during New Source Review to demonstrate that applicable ambient air quality standards will be met during the operational lifetime of the permit applicant's operations.

Sources subject to the PSD permit review procedure are also required to demonstrate potential impacts on AQRV. These include visibility impacts, degradation of mountain lakes from atmospheric deposition (i.e., acid rain), and effects on sensitive flora and fauna in PSD Class I and Class II areas. The CAA also provides specific visibility protection procedures for the mandatory federal PSD Class I areas designated by the U.S. Congress on August 7, 1977, which included wilderness areas greater than 5,000 acres in size, as well as national parks and national memorial parks greater than 6,000 acres in size as of that date.

## P.5 AIR QUALITY IMPACT ASSESSMENT

As described in Chapter 4, Environmental Consequences (Air Quality), the BLM used a qualitative emission comparison approach this assessment. A qualitative method was selected because of a lack of specific project information on location, types, and magnitude of potential projects. Emissions calculations (see Section P.6, Emission Calculations) were based on the best available engineering data and assumptions, emission inventory procedures, and professional and scientific judgment. However, when specific data or procedures were not available, assumptions were applied (see emission assumptions, Section P.6.1). For any future projects, significance criteria for potential air quality impacts will include local, state, tribal, and federally enforced legal requirements to ensure that air pollutant concentrations remain within specific allowable levels.

It is important to note that before actual development could occur, the applicable air quality regulatory agencies (including the state, tribe, or the EPA) would need to review specific air pollutant emissions preconstruction permit applications that examine potential project-specific air quality impacts. As part of

these permit reviews (depending on source size), the air quality regulatory agencies could require additional quantitative air quality impact analyses or mitigation measures. Thus, before development occurred, additional site-specific air quality analyses may need to be performed to ensure protection of air quality. Federal land managers may require a demonstration that potential impacts from proposed projects would not adversely affect AQRV (including visibility) in sensitive Class I and Class II areas.

# P.6 EMISSION CALCULATIONS

For this analysis, emissions of $PM_{10}$, $PM_{2.5}$, NOx, $SO_2$, CO, VOC, HAPs, and GHG were estimated for a 20-year period starting in 2012, beginning with 2013 as the short year (year 1), 2021 as the mid-year (year 10), and 2031 as the long year (year 20). Emissions were estimated for the four alternatives: Alternative A (Current Management), Alternative B (Emphasizes Conservation), Alternative C (Emphasizes Resource Use), and Alternative D (Emphasizes Less Conservation than Alternative B and Less Use than Alternative C). Emissions of the Proposed RMP were assessed by comparing the proposed actions of the Proposed RMP with those of Alternative A through Alternative D. The BLM's Excel spreadsheet-based emissions calculators were adapted for the analysis to estimate emissions for the planning area. Trona mining emissions were calculated separately using emissions factors and methodology from a Wyoming trona mining permit application (see Section P.6.3 for additional information for trona mining calculations). Emission factors used in the BLM calculators to estimate proposed emissions were obtained from: (1) the EPA NONROAD2008a Emissions Model, (2) EPA's AP-42 Guidance, and (3) EPA MOVES 2010a for mobile emissions factor model for non-road motor vehicles. Information regarding equipment types, numbers, activity, etc., for the various emission categories/activities was provided by specialists in the BLM Rock Springs Field Office.

When reviewing the resulting emissions inventory shown in Section P.6.4, it is important to understand that assumptions were made regarding development. For example, there is uncertainty regarding ultimate development of energy resources (e.g., number of wells, equipment used, specific locations of wells, etc.). In general, the assumptions that were made would tend to result in a conservatively high estimate of emissions. For instance, given the number of sources included in this analysis, the likelihood that all emission sources would actually operate at their reasonable, foreseeable maximum emission rates over an entire year (or even 24 hours) is small. A summary of total emissions for each pollutant species from all BLM activities is presented in Chapter 4, in the Air Quality Section. Detailed emission totals for each alternative/planning year are presented in Table P-3 through Table P-15.

## P.6.1 Emission Development Assumptions

For the qualitative emission comparison approach, the following assumptions were used:

- All emission sources are assumed to operate at their reasonably foreseeable maximum emission rates (as identified in the other resource sections of this document) simultaneously throughout the area. Given the number of sources included in this analysis, the co-probability of such a scenario actually occurring over an entire year (or even 24 hours) is small.
- In developing the emissions inventory, there is uncertainty regarding ultimate development (i.e., number of wells, equipment to be used, specific locations, etc.). Only 75% of the proposed oil and gas wells were assumed to be fully operational and remain operating, with normal well closures throughout the area at a rate of 12 wells per year. For coalbed natural gas (CBNG) wells, it was assumed that 80% of the wells drilled annually are fully operational and remain operating, with normal well closures throughout the area at a rate of one well per year. The BLM field office provided the well numbers used in this analysis.
- Mitigation measures are included in the emissions inventory that may not be achievable in all circumstances. However, actual mitigation decided upon by the developers and local and state authorities may be greater or lesser than those assumed in the analysis. For example, maintaining

a construction road speed limit of 15 miles per hour (mph) may be reasonable in a construction zone but difficult to enforce elsewhere. Full (100%) mitigation of fugitive dust from disturbed lands may not be achievable. Further, 50% reduction in fugitive emissions is assumed based on construction road wetting on the unimproved access road to the pad and at the pad, but this level of effectiveness is characterized as the maximum possible. Wetting of haul roads was assumed for maintenance traffic.

- Induced or secondary growth related to increases in vehicle miles traveled (VMT) is not included in the emissions inventory. Only activities directly related to BLM actions are considered. (An example of 'secondary' development is where an increase of workers causes an increase of more people to support them, such as shopping centers. Growth of air emissions would occur to secondary activities, such as workers traveling to the store or to recreational activities.)

The major assumptions used in developing the emissions calculations are:

- EPA-recommended emission factors (i.e., *AP-42*) are appropriate for all activities.
- Activity factors (or the quantification of activity for each resource program as provided by the Rock Springs Field Office) are appropriate for the short year (year 1) and all future time frames. Activity factors, such as production wells, and well abandonment, are taken into account for each year. The rates of well closures and successful wells (i.e. producing wells) remains constant throughout each year (see the second bullet for details).
- For the qualitative analysis, only emissions from Rock Springs Field Office BLM-administered activities are included.
- For the cumulative impacts analysis, emissions calculated for oil and gas taking place within the Rock Springs Field Office (including for federal and non-federal actions), statewide, and county emissions are included. Statewide and county emissions were obtained from the most recent National Emissions Inventory from 2014.

Emissions were calculated for the following activities: oil development and production, natural gas development and production, CBNG development and production, coal mining, trona mining, sand and gravel mining, BLM travel, lands and realty actions, trails and roads, livestock grazing, vegetation management, and fire management.

A qualitative emission comparison approach was selected for this RMP air quality analysis. This approach was used because: (1) the uncertainty of the data and future demand for fluid and solid minerals development impacting the accuracy of the estimated emissions and (2) as projects are defined, quantitative analysis will be required. There are limitations associated with this approach. However, given the uncertainties with the number, nature, and specific location of future sources and activities, the emission comparison approach is defensible and provides a sound basis to compare alternatives.

It is important to note that before actual development could occur, the applicable air quality regulatory agencies (including the state, Tribal, or EPA) would review specific air pollutant emissions preconstruction permit applications that examine potential project-specific air quality impacts. As part of these permit reviews (depending on source size), the air quality regulatory agencies could require additional air quality impact analyses or mitigation measures. Thus, before development occurs, additional site-specific air quality analyses would be performed to ensure protection of air quality. Per the FLPMA, the BLM would need to demonstrate that potential impacts from proposed projects will not adversely affect AQRVs (including visibility) in PSD Class I and sensitive Class II areas.

## P.6.2 Emissions Estimation Criteria

Emissions from BLM-associated activities were calculated based on data provided by the Rock Springs Field Office and best available information, AP-42, and the emission analysis results from previous BLM studies. The BLM used the BLM calculators to estimate emissions from the proposed scenarios. Because oil and gas field activities comprise many phases (i.e., exploration, development, production, and closure), the components that need to be included in emission calculations are complex. The text below provides details on the emissions estimated from the various sources analyzed as part of this RMP.

Estimated emissions from oil, gas, and CBNG wells include the following:

- Fugitive dust, combustive, and GHG emissions from well pad construction activities
- Fugitive dust, combustive, and GHG emissions from road traffic
- Fugitive dust, combustive, and GHG emissions from construction and drilling support vehicles
- Combustive emissions from natural gas-fired compressors (CBNG well only)
- Fugitive dust, combustive, and GHG emissions from separators, dehydrators, and water-tank heater operations
- Fugitive dust, combustive, and GHG emissions from compressor station visits
- Fugitive dust, combustive, and GHG emissions from well workover operations
- Fugitive dust, combustive, and GHG emissions from well and pipeline visits for inspection and repair
- HAPs and VOC emissions from tank condensate, venting (for natural gas wells only) and truck loadout (for natural gas wells only)
- Fugitive dust, combustive, and GHG emissions from road-maintenance activities
- Fugitive dust, combustive, and GHG emissions from road and well reclamation activities
- VOC and GHG from wellhead fugitives and venting.

Estimated emissions from coal mining include the following:

- Fugitive dust, combustive, and GHG emissions from extraction and processing activities, road traffic, and reclamation activities.

Estimated emissions from sand and gravel mining include the following:

- Fugitive dust, combustive, and GHG emissions from extraction and processing activities, road traffic, and reclamation activities.

Estimated emissions from BLM trails and roads include the following:

- Fugitive dust, combustive, and GHG emissions from road traffic
- Fugitive dust, combustive, and GHG emissions from maintenance activities (trails and travel only).

Estimated emissions from fire management include the following:

- Fugitive dust and smoke from fires
- Fugitive dust, combustive, and GHG emissions from road traffic and heavy equipment operations.

Estimated emissions from vegetation management and rights-of-way (ROW) include the following:

- Fugitive dust, combustive, and GHG emissions from road traffic and heavy equipment operations.

Estimated emissions from livestock grazing include the following:

- Fugitive dust, combustive, and GHG emissions from road traffic and heavy equipment operations
- Methane emissions from enteric fermentation and manure management operations.

Summaries of emission inventories for each of the BLM activities for the short-year (year 1), mid-year (year 10), and long-year (year 20) scenarios are provided in Section P.6.4 for all of the alternatives. These emissions were calculated from data provided by the Rock Springs Field Office and used the best available information, AP-42, and the emission studies from other BLM documents.

The assumed numbers of oil and gas wells are provided by the Rock Springs Field Office and are shown in Table P-2. This table accounts for new wells to be drilled in the planning area.

**Table P-2. Total Producing Wells for BLM and Non-BLM Activities Per Alternative***

| Activity | Scenario | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Alternative A | | Alternative B | | Alternative C | | Alternative D | |
| | Fed | Non-Fed | Fed | Non-Fed | Fed | Non-Fed | Fed | Non-Fed |
| **Short Year (Year 1)** | | | | | | | | |
| Producing Oil Wells | 171 | 76 | 158 | 76 | 172 | 76 | 171 | 76 |
| Producing Natural Gas Wells | 1,539 | 687 | 1,424 | 687 | 1,544 | 688 | 1,538 | 688 |
| Producing CBNG Wells | 33 | 27 | 30 | 27 | 34 | 27 | 33 | 27 |
| **Mid-Year (Year 10)** | | | | | | | | |
| Producing Oil Wells | 316 | 108 | 188 | 108 | 321 | 108 | 314 | 108 |
| Producing Natural Gas Wells | 2,843 | 973 | 1,690 | 972 | 2,886 | 976 | 2,828 | 976 |
| Producing CBNG Wells | 68 | 34 | 42 | 33 | 75 | 36 | 72 | 36 |
| **Long Year (Year 20)** | | | | | | | | |
| Producing Oil Wells | 478 | 144 | 222 | 144 | 488 | 145 | 475 | 145 |
| Producing Natural Gas Wells | 4,304 | 1,294 | 1,997 | 1,293 | 4,390 | 1,302 | 4,273 | 1,302 |
| Producing CBNG Wells | 100 | 59 | 49 | 58 | 114 | 64 | 107 | 64 |

*As per the RFD it is assumed that 75% of all new oil and gas wells drilled and 80% of all CBNG wells drilled become producing.

Estimated emissions from oil and gas development for all alternatives were calculated using a reasonably foreseeable development rate based on historical development rates for federal wells within the planning area over the last 20 years. Estimated emissions from oil and gas activities were based on a rate of 75% of all new oil and gas wells being producing wells. It was also assumed that a rate of 12 oil and gas wells would be abandoned annually.

Estimated emissions from CBNG development for all alternatives were calculated using a reasonably foreseeable development rate based on historical development rates for federal wells within the planning area over the last 20 years. Estimated emissions from CBNG activities were based on a rate of 80% of all new oil and gas wells being producing wells. It was also assumed that a rate of one CBNG well would be abandoned annually.

## P.6.3 Trona Mining Emissions Estimation

The BLM calculators do not account for trona mining; therefore, the BLM developed a separate calculator to estimate trona mining emissions. The BLM based the trona mine emissions calculator on a permit application analysis prepared by the WDEQ-AQD for the Ciner Wyoming, LLC, Big Island Mine and Refinery. The BLM used this analysis to develop emission factors based on tons of trona produced per year. The Ciner facility emissions estimate included soda ash dryers, coolers, and calciner; vents for the mines and processing equipment; heavy machinery used around the facility; and both gasoline and diesel industrial engines. The BLM included these sources in its trona mining emissions calculator.

The BLM also accounted for employee commute emissions and the transfer of trona off-site via train to two locations outside of Wyoming. For consistency, the BLM used the same emission factors for employee commuting emissions and emissions from the transfer of trona by locomotive that were used for the BLM calculators. The BLM calculator emission factors were obtained from (1) the EPA NONROAD2008a Emissions Model, (2) EPA's AP-42 Guidance, and (3) EPA Emission Factors for Locomotives. The BLM used the Union Pacific Website to obtain information on fuel consumed (ton-miles/gallon) during trona shipping using the locomotives.

The 2012 Soil Mineral Occurrence and Development Potential Report for the Rock Springs Field Office (BLM 2012) was used to calculate the trona numbers. The numbers are as follows:

- The total annual tons of trona produced in the Rock Springs planning area is 2,641,105 tons/year.
  - The 2012 Mineral Potential Report states the total amount mined in year 2010 was 16,506,904 tons. The 16.5-million-ton estimate is for all production from the Green River Basin (KSLA). For estimating the emissions from activity on BLM managed lands, the checkerboard land ownership pattern is factored in. Therefore, the factor would be 3,653,566 mineral estate acres per 5,700,195 total acres or 64.1% (BLM, 2012). This factor is multiplied by 25% to account for the checkerboard land ownership, resulting in BLM trona emission equaling 16% (2,641,105 tons/year) of the total KSLA mined material.
- The total number of commuting employees in the Rock Springs planning area is 716.
  - The number of employees was calculated in the same manner as tons mined per year. The number of employee commuters is based on 33% (716) of the total workers in the KSLA (2,151 employees), as identified in the Mineral Potential Report for the Rock Springs Field Office.

## P.6.4 Summary of the Rock Springs Planning Area BLM Emissions for All Activities

Table P-3 through Table P-14 summarize the projected total annual emissions by alternative from the short-year (year 1), mid-year (year 10), and long-year (year 20) and Table P-15 summarizes the projected total annual emissions for trona mining for all alternatives.

Air quality impacts would primarily result from minerals development and production and oil and natural gas development activities; emissions associated with these actions would outweigh those produced from other proposed activities.

The alternatives were compared to each other and the results show that Alternative B would result in the lowest levels of emissions in the short year (year 1), mid-year (year 10), and long year (year 20) for all pollutants, while Alternative C would result in the highest levels of emissions for all years. In general, all emissions are likely to be greatest under Alternative C, followed by Alternative A, Alternative D, and Alternative B, respectively. However, since Alternative D has a higher RFD prediction for CBNG wells than Alternative A, the Mid- and Long-Year emissions exceed that of Alternative A. Specifically, for the

Mid-Year, PM10, PM2.5, VOC, and CH4 Alternative D has the second highest emissions, while all other pollutants were second highest for Alternative A. For the Long-Year, PM10, PM2.5 Alternative D has the second highest emissions, while all other pollutants were second highest for Alternative A. This is due primarily to the higher RFD rate predicted for fluid and solid mineral activities for Alternatives A over D with exception of CBNG Wells, where Alternative D is higher. As stated previously, emissions of the Proposed RMP were assessed by comparing the proposed actions of the Proposed RMP with those of Alternative A through Alternative D.

For each alternative, Figure P-5, Figure P-6, and Figure P-7 present a visual summary of the regulated pollutant emissions for short-year (year 1), mid-year (year 10), and long-year (year 20), respectively. Figure P-8, Figure P-9, and Figure P-10 present a visual summary of the GHG pollutant emissions for short-year (year 1), mid-year (year 10), and long-year (year 20), respectively.

**Figure P-5. Emissions Estimates for Short Year from BLM Activities in the Rock Springs Planning Area - Criteria Pollutants**

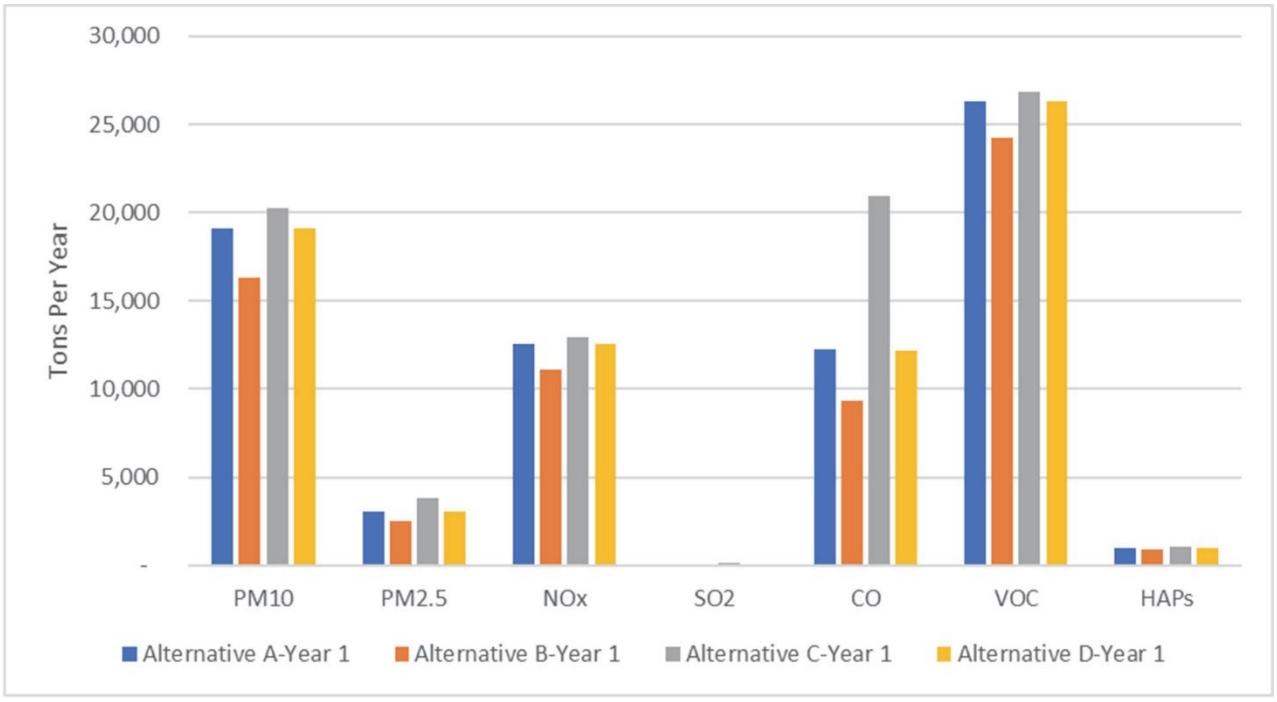


**Figure P-6. Emissions Estimates for Mid-Year from BLM Activities in the Rock Springs Planning Area - Criteria Pollutants**

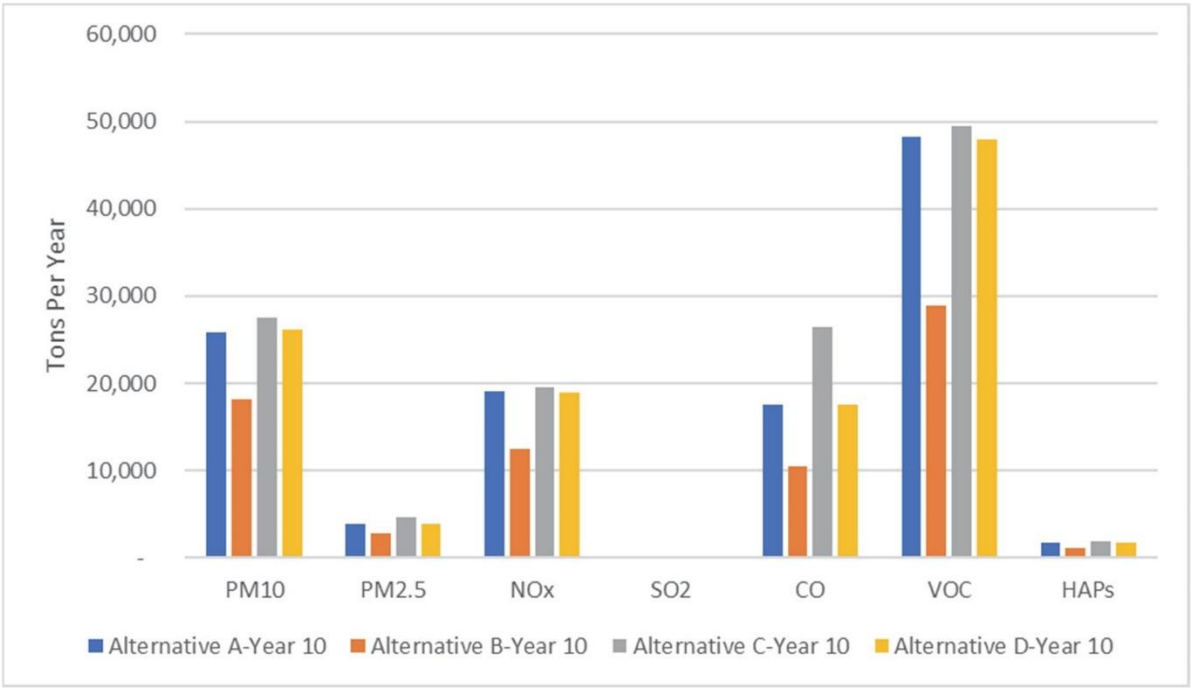



**Figure P-7. Emissions Estimates for Long Year from BLM Activities in the Rock Springs Planning Area - Criteria Pollutants**

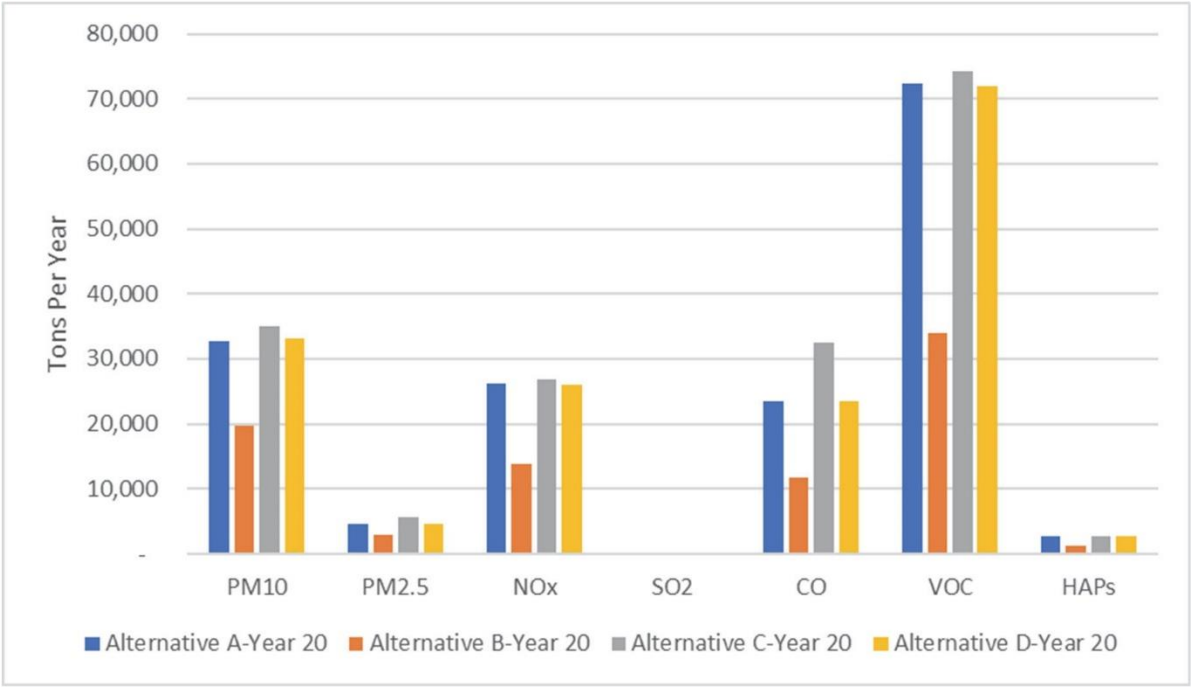


**Figure P-8. Emissions Estimates for Short Year from BLM Activities in the Rock Springs Planning Area – GHG**

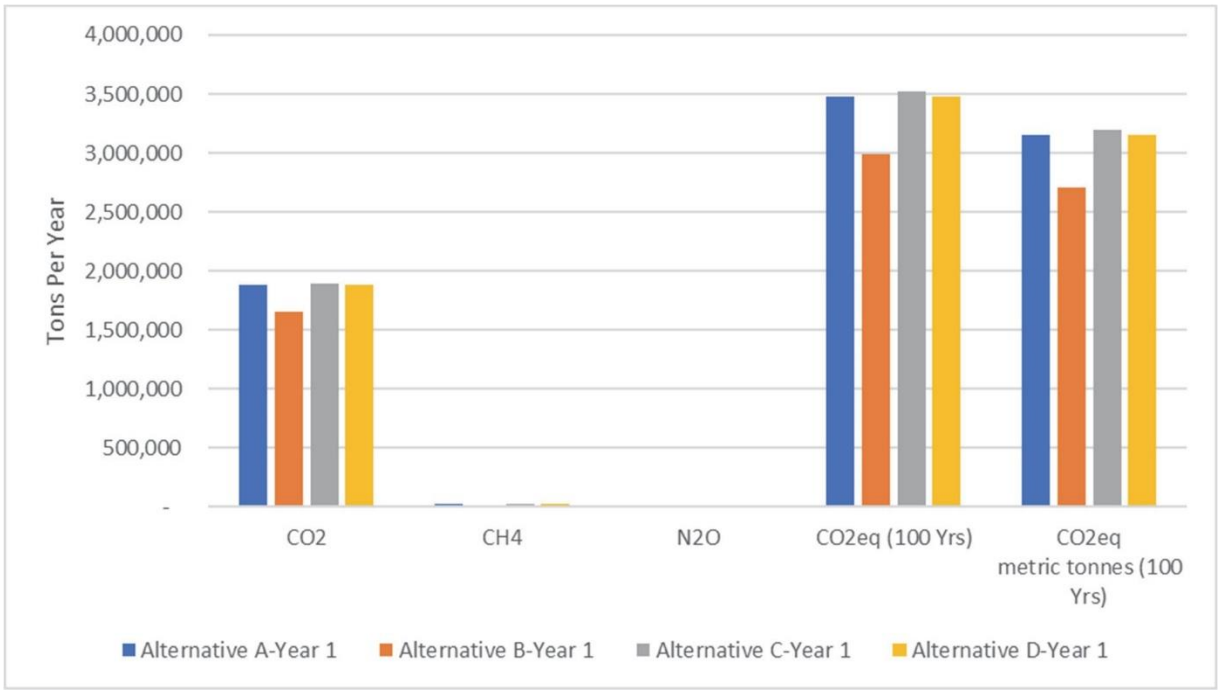



**Figure P-9. Emissions Estimates for Mid-Year from BLM Activities in the Rock Springs Planning Area – GHG**

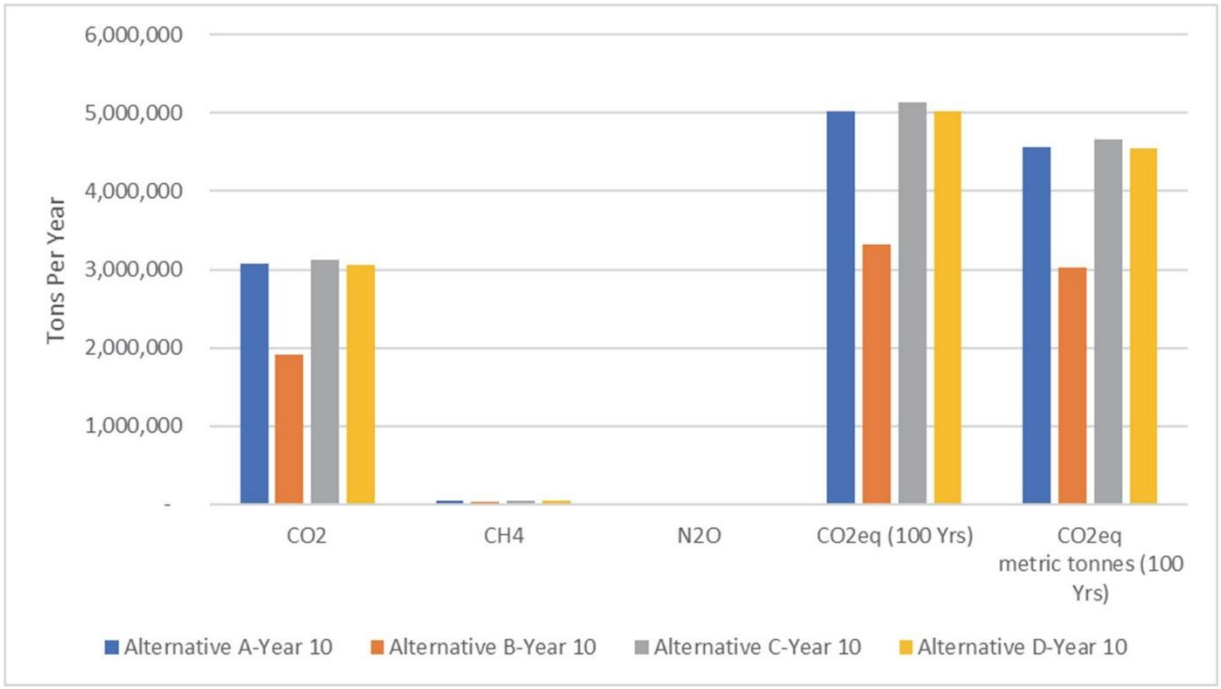


**Figure P-10. Emissions Estimates for Long Year from BLM Activities in the Rock Springs Planning Area – GHG**

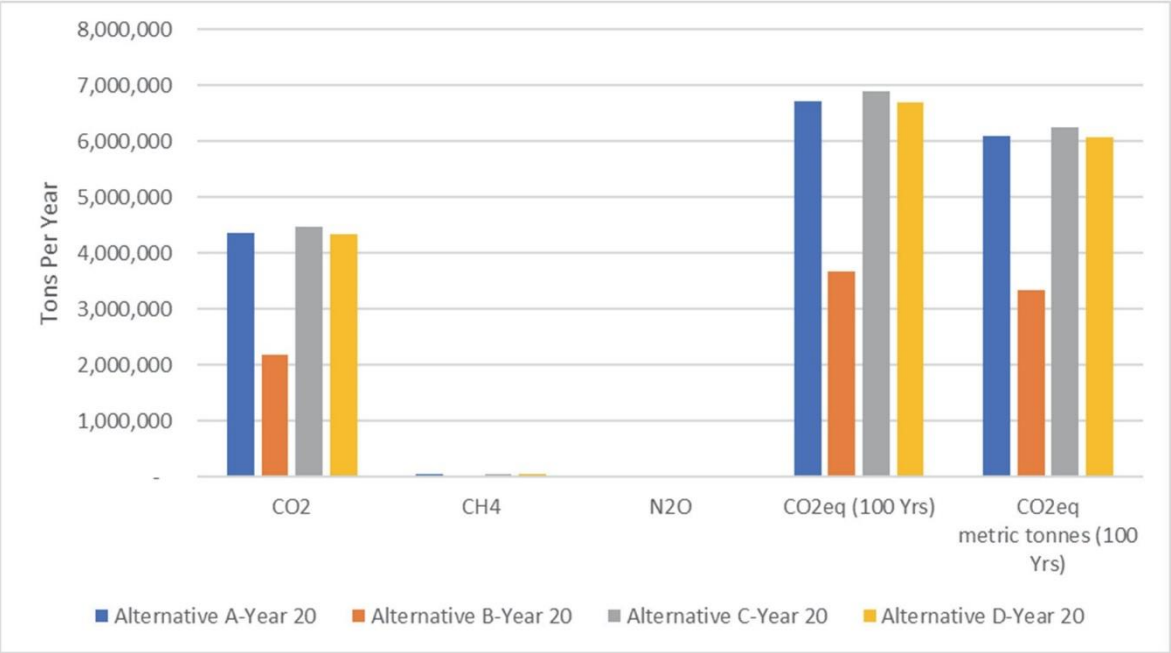



Table P-16 through Table P-28 summarize the inputs used to obtain annual emissions. Additional detail on specific inputs can be found in the BLM Excel calculation documents.

Table P-29 and Table P-30 summarize the data used to develop the GHG emissions and cumulative impacts.

## Table P-3. Alternative A—Short-Year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 122 | 15 | 65 | <1 | 16 | 4 | <1 | 8,025 | <1 | <1 | 8,052 | 7,305 |
| Federal Oil Wells - Sub-total: Operations | 182 | 36 | 4,969 | 1 | 2,595 | 417 | 35 | 225,832 | 1,003 | 2 | 254,545 | 230,920 |
| Federal Oil Wells - Sub-total: Maintenance | 223 | 31 | 111 | <1 | 70 | 18 | 2 | 12,462 | <1 | <1 | 12,495 | 11,335 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | <1 | <1 | <1 | 88 | <1 | <1 | 89 | 80 |
| **Federal Oil Wells - Total Emissions** | **530** | **82** | **5,146** | **2** | **2,682** | **439** | **38** | **246,407** | **1,003** | **3** | **275,181** | **249,640** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,745 | <1 | <1 | 1,765 | 1,601 |
| Non-Federal Oil Wells - Sub-total: Operations | 81 | 16 | 2,208 | 1 | 1,153 | 185 | 16 | 100,370 | 446 | 1 | 113,131 | 102,631 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 99 | 14 | 49 | <1 | 31 | 8 | 1 | 5,538 | <1 | <1 | 5,553 | 5,038 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 39 | <1 | <1 | 39 | 36 |
| **Non-Federal Oil Wells - Total Emissions** | **208** | **33** | **2,272** | **1** | **1,188** | **194** | **17** | **107,692** | **446** | **1** | **120,488** | **109,305** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,330 | 461 | 1,144 | 3 | 283 | 82 | 8 | 159,269 | 21 | 1 | 160,231 | 145,359 |
| Federal Natural Gas Wells - Sub-total: Operations | 4,233 | 531 | 2,141 | 6 | 3,106 | 24,422 | 812 | 1,073,981 | 12,516 | 16 | 1,428,730 | 1,296,123 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 105 | 15 | 52 | <1 | 33 | 9 | 1 | 5,841 | <1 | <1 | 5,857 | 5,313 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 16 | 2 | 3 | <1 | 2 | 1 | <1 | 394 | <1 | <1 | 395 | 358 |
| **Federal Natural Gas Wells - Total Emissions** | **7,683** | **1,009** | **3,340** | **8** | **3,424** | **24,513** | **821** | **1,239,485** | **12,537** | **18** | **1,595,213** | **1,447,053** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 781 | 108 | 268 | 1 | 66 | 19 | 2 | 37,341 | 5 | 1 | 37,845 | 34,342 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 1,889 | 237 | 955 | 2 | 1,386 | 10,902 | 363 | 479,377 | 5,587 | 7 | 637,735 | 578,543 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 47 | 7 | 23 | <1 | 15 | 4 | <1 | 2,608 | <1 | <1 | 2,615 | 2,373 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 7 | 1 | 2 | <1 | 1 | <1 | <1 | 176 | <1 | <1 | 176 | 160 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **2,723** | **353** | **1,248** | **3** | **1,468** | **10,925** | **365** | **519,501** | **5,592** | **9** | **678,370** | **615,407** |
| Federal CBNG Wells - Sub-total: Construction | 14 | 2 | 10 | <1 | 4 | 1 | <1 | 1,515 | <1 | <1 | 1,520 | 1,379 |
| Federal CBNG Wells - Sub-total: Operations | 2,360 | 244 | 189 | <1 | 345 | 386 | 49 | 35,127 | 1,145 | <1 | 67,240 | 60,999 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 10 | 1 | <1 | <1 | <1 | <1 | <1 | 13 | <1 | <1 | 13 | 12 |
| **Federal CBNG Wells - Total Emissions** | **2,385** | **247** | **200** | **<1** | **349** | **387** | **49** | **36,655** | **1,145** | **<1** | **68,773** | **62,390** |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 1,010 | <1 | <1 | 1,013 | 919 |
| Non-Federal CBNG Wells - Sub-total: Operations | 1,931 | 200 | 155 | <1 | 282 | 316 | 40 | 28,740 | 937 | <1 | 55,015 | 49,909 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 8 | 1 | <1 | <1 | <1 | <1 | <1 | 10 | <1 | <1 | 10 | 9 |
| **Non-Federal CBNG Wells - Total Emissions** | **1,949** | **202** | **162** | **<1** | **285** | **316** | **40** | **29,761** | **937** | **<1** | **56,039** | **50,837** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Federal Fire Management and Ecology - Total Emissions** | **274** | **194** | **85** | **17** | **2,174** | **114** | **11** | **9,172** | **115** | **17** | **16,845** | **15,281** |
| Federal Land Resources (ROW and Renewable Energy [RE]) - Sub-total: Heavy Equipment | 59 | 10 | 43 | <1 | 24 | 7 | 1 | 5,079 | <1 | <1 | 5,093 | 4,620 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 4 | <1 | <1 | <1 | 1 | <1 | <1 | 114 | <1 | <1 | 114 | 103 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **62** | **11** | **43** | **<1** | **25** | **7** | **1** | **5,193** | **<1** | **<1** | **5,207** | **4,724** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **7** | **1** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-4. Alternative B—Short-Year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 33 | 4 | 17 | <1 | 4 | 1 | <1 | 2,093 | <1 | <1 | 2,101 | 1,906 |
| Federal Oil Wells - Sub-total: Operations | 168 | 33 | 4,591 | 1 | 2,398 | 385 | 33 | 208,664 | 927 | 2 | 235,194 | 213,364 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Maintenance | 206 | 29 | 103 | <1 | 65 | 17 | 2 | 11,514 | <1 | <1 | 11,545 | 10,473 |
| Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 34 | <1 | <1 | 34 | 31 |
| **Federal Oil Wells - Total Emissions** | **409** | **66** | **4,711** | **1** | **2,467** | **403** | **34** | **222,305** | **927** | **2** | **248,873** | **225,744** |
| Non-Federal Oil Wells - Sub-total: Construction | 27 | 3 | 14 | <1 | 4 | 1 | <1 | 1,745 | <1 | <1 | 1,751 | 1,589 |
| Non-Federal Oil Wells - Sub-total: Operations | 81 | 16 | 2,208 | 1 | 1,153 | 185 | 16 | 100,370 | 446 | 1 | 113,131 | 102,631 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 99 | 14 | 49 | <1 | 31 | 8 | 1 | 5,539 | <1 | <1 | 5,553 | 5,038 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 16 | <1 | <1 | 16 | 15 |
| **Non-Federal Oil Wells - Total Emissions** | **208** | **33** | **2,272** | **1** | **1,188** | **194** | **17** | **107,669** | **446** | **1** | **120,452** | **109,272** |
| Federal Natural Gas Wells - Sub-total: Construction | 1,546 | 219 | 301 | 1 | 74 | 22 | 2 | 41,913 | 5 | <1 | 42,166 | 38,252 |
| Federal Natural Gas Wells - Sub-total: Operations | 3,915 | 491 | 1,980 | 5 | 2,874 | 22,597 | 752 | 993,599 | 11,581 | 15 | 1,321,839 | 1,199,153 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 97 | 14 | 48 | <1 | 30 | 8 | 1 | 5,405 | <1 | <1 | 5,419 | 4,916 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 155 | <1 | <1 | 155 | 141 |
| **Federal Natural Gas Wells - Total Emissions** | **5,564** | **725** | **2,331** | **6** | **2,979** | **22,627** | **755** | **1,041,071** | **11,587** | **15** | **1,369,580** | **1,242,463** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 1,377 | 196 | 268 | 1 | 66 | 19 | 2 | 37,341 | 5 | <1 | 37,577 | 34,089 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 1,889 | 237 | 955 | 2 | 1,386 | 10,902 | 363 | 479,377 | 5,587 | 7 | 637,735 | 578,543 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 47 | 7 | 23 | <1 | 15 | 4 | <1 | 2,608 | <1 | <1 | 2,615 | 2,372 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | <1 | <1 | <1 | 75 | <1 | <1 | 75 | 68 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **3,316** | **440** | **1,248** | **3** | **1,468** | **10,925** | **365** | **519,400** | **5,592** | **8** | **678,001** | **615,072** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal CBNG Wells - Sub-total: Construction | 7 | 1 | 6 | <1 | 3 | 1 | <1 | 830 | <1 | <1 | 833 | 755 |
| Federal CBNG Wells - Sub-total: Operations | 2,146 | 222 | 172 | <1 | 313 | 351 | 45 | 31,621 | 1,041 | <1 | 60,813 | 55,169 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 9 | <1 | <1 | 9 | 8 |
| **Federal CBNG Wells - Total Emissions** | **2,161** | **224** | **178** | **<1** | **316** | **351** | **45** | **32,460** | **1,041** | **<1** | **61,655** | **55,932** |
| Non-Federal CBNG Wells - Sub-total: Construction | 10 | 2 | 8 | <1 | 4 | 1 | <1 | 1,107 | <1 | <1 | 1,110 | 1,007 |
| Non-Federal CBNG Wells - Sub-total: Operations | 1,931 | 200 | 155 | <1 | 282 | 316 | 40 | 28,459 | 937 | <1 | 54,732 | 49,652 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 6 | 1 | <1 | <1 | <1 | <1 | <1 | 8 | <1 | <1 | 8 | 7 |
| **Non-Federal CBNG Wells - Total Emissions** | **1,948** | **202** | **162** | **<1** | **286** | **317** | **40** | **29,574** | **937** | **<1** | **55,850** | **50,667** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** | **5,920** | **1** | **<1** | **5,997** | **5,440** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 62 | 13 | 66 | <1 | 37 | 10 | 1 | 7,812 | <1 | <1 | 7,833 | 7,106 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 5 | 1 | <1 | <1 | <1 | <1 | <1 | 80 | <1 | <1 | 80 | 73 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **67** | **14** | **66** | **<1** | **38** | **10** | **1** | **7,892** | **<1** | **<1** | **7,913** | **7,178** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 6 | 1 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 9 | 1 | 2 | <1 | 1 | <1 | <1 | 334 | 3,222 | <1 | 90,550 | 82,145 |
| **Federal Livestock Grazing - Total Emissions** | **16** | **2** | **4** | **<1** | **2** | **<1** | **<1** | **550** | **3,222** | **<1** | **90,766** | **82,341** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 28 | 3 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **28** | **3** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-5. Alternative C—Short-Year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 127 | 15 | 68 | <1 | 17 | 5 | <1 | 8,374 | <1 | <1 | 8,402 | 7,622 |
| Federal Oil Wells - Sub-total: Operations | 183 | 36 | 4,968 | 1 | 2,610 | 419 | 36 | 227,153 | 1,009 | 2 | 256,034 | 232,270 |
| Federal Oil Wells - Sub-total: Maintenance | 225 | 32 | 112 | <1 | 71 | 19 | 2 | 12,534 | <1 | <1 | 12,568 | 11,338 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 92 | <1 | <1 | 92 | 83 |
| **Federal Oil Wells - Total Emissions** | **537** | **83** | **5,178** | **2** | **2,698** | **442** | **38** | **248,153** | **1,009** | **3** | **277,096** | **251,377** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,745 | <1 | <1 | 1,765 | 1,601 |
| Non-Federal Oil Wells - Sub-total: Operations | 81 | 16 | 2,208 | 1 | 1,153 | 185 | 16 | 100,370 | 446 | 1 | 113,131 | 102,631 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 99 | 14 | 49 | <1 | 31 | 8 | 1 | 5,538 | <1 | <1 | 5,553 | 5,038 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 41 | <1 | <1 | 41 | 37 |
| **Non-Federal Oil Wells - Total Emissions** | **208** | **33** | **2,272** | **1** | **1,188** | **194** | **17** | **107,694** | **446** | **1** | **120,491** | **109,307** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,385 | 468 | 1,177 | 3 | 291 | 84 | 8 | 163,841 | 21 | 1 | 164,831 | 149,532 |
| Federal Natural Gas Wells - Sub-total: Operations | 4,247 | 5,332 | 2,148 | 6 | 3,116 | 24,501 | 815 | 1,077,475 | 12,557 | 16 | 1,433,377 | 1,300,338 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 105 | 15 | 52 | <1 | 33 | 9 | 1 | 5,860 | <1 | <1 | 5,877 | 5,331 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 16 | 2 | 4 | <1 | 2 | 1 | <1 | 403 | <1 | <1 | 401 | 367 |
| **Federal Natural Gas Wells - Total Emissions** | **7,753** | **1,018** | **3,380** | **9** | **3,442** | **24,595** | **824** | **1,247,580** | **12,578** | **18** | **1,604,488** | **1,455,568** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 784 | 109 | 268 | 1 | 66 | 19 | 2 | 37,341 | 5 | 1 | 37,842 | 34,329 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 1,915 | 260 | 1,257 | 4 | 1,641 | 10,934 | 363 | 840,273 | 5,602 | 14 | 1,000,804 | 907,915 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 47 | 7 | 23 | <1 | 15 | 4 | <1 | 2,611 | <1 | <1 | 2,618 | 2,375 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 7 | 1 | 2 | <1 | 1 | <1 | <1 | 175 | <1 | <1 | 175 | 159 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **2,752** | **376** | **1,550** | **5** | **1,723** | **10,957** | **366** | **880,399** | **5,607** | **15** | **1,041,439** | **944,778** |
| Federal CBNG Wells - Sub-total: Construction | 16 | 2 | 12 | <1 | 5 | 1 | <1 | 1,730 | <1 | <1 | 1,735 | 1,574 |
| Federal CBNG Wells - Sub-total: Operations | 2,432 | 251 | 195 | <1 | 355 | 398 | 51 | 36,192 | 1,179 | <1 | 69,278 | 62,848 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 11 | 1 | <1 | <1 | <1 | <1 | <1 | 14 | <1 | <1 | 14 | 13 |
| **Federal CBNG Wells - Total Emissions** | **2,460** | **255** | **207** | **<1** | **360** | **399** | **51** | **37,936** | **1,180** | **<1** | **71,028** | **64,435** |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 988 | <1 | <1 | 992 | 900 |
| Non-Federal CBNG Wells - Sub-total: Operations | 1,931 | 200 | 155 | <1 | 282 | 316 | 40 | 28,740 | 937 | <1 | 55,015 | 49,909 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 8 | 1 | <1 | <1 | <1 | <1 | <1 | 10 | <1 | <1 | 11 | 10 |
| **Non-Federal CBNG Wells - Total Emissions** | **1,949** | **202** | **162** | **<1** | **285** | **316** | **40** | **29,740** | **937** | **<1** | **56,018** | **50,818** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **1,203** | **945** | **343** | **83** | **10,816** | **557** | **56** | **11,340** | **572** | **83** | **49,372** | **44,790** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 82 | 14 | 55 | <1 | 31 | 9 | 1 | 6,556 | <1 | <1 | 6,573 | 5,963 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 207 | <1 | <1 | 208 | 189 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **87** | **15** | **56** | **<1** | **32** | **9** | **1** | **6,763** | **<1** | **<1** | **6,781** | **6,151** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 21 | 2 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **21** | **2** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-6. Alternative D—Short-Year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 122 | 15 | 65 | <1 | 16 | 4 | <1 | 8,025 | <1 | <1 | 8,052 | 7,305 |
| Federal Oil Wells - Sub-total: Operations | 182 | 36 | 4,969 | 1 | 2,595 | 417 | 35 | 225,832 | 1,003 | 2 | 254,545 | 230,920 |
| Federal Oil Wells - Sub-total: Maintenance | 223 | 31 | 111 | <1 | 70 | 18 | 2 | 12,462 | <1 | <1 | 12,495 | 11,335 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | <1 | <1 | <1 | 88 | <1 | <1 | 89 | 80 |
| **Federal Oil Wells - Total Emissions** | **530** | **82** | **5,146** | **2** | **2,682** | **439** | **38** | **246,407** | **1,003** | **3** | **275,181** | **249,640** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,745 | <1 | <1 | 1,765 | 1,601 |
| Non-Federal Oil Wells - Sub-total: Operations | 81 | 16 | 2,208 | 1 | 1,153 | 185 | 16 | 100,370 | 446 | 1 | 113,131 | 102,631 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Oil Wells - Sub-total: Maintenance | 99 | 14 | 49 | <1 | 31 | 8 | 1 | 5,538 | <1 | <1 | 5,553 | 5,038 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 39 | <1 | <1 | 39 | 36 |
| **Non-Federal Oil Wells - Total Emissions** | **208** | **33** | **2,272** | **1** | **1,188** | **194** | **17** | **107,692** | **446** | **1** | **120,488** | **109,305** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,312 | 459 | 1,133 | 3 | 280 | 81 | 8 | 157,745 | 21 | 1 | 158,698 | 143,969 |
| Federal Natural Gas Wells - Sub-total: Operations | 4,230 | 531 | 2,140 | 6 | 3,104 | 24,406 | 812 | 1,073,281 | 12,508 | 16 | 1,427,801 | 1,295,279 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 105 | 15 | 52 | <1 | 33 | 9 | 1 | 5,838 | <1 | <1 | 5,854 | 5,311 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 15 | 2 | 3 | <1 | 2 | 1 | <1 | 390 | <1 | <1 | 391 | 355 |
| **Federal Natural Gas Wells - Total Emissions** | **7,662** | **1,006** | **3,328** | **8** | **3,419** | **24,496** | **821** | **1,237,254** | **12,529** | **18** | **1,592,744** | **1,444,914** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 784 | 109 | 268 | 1 | 66 | 19 | 2 | 37,341 | 5 | 1 | 37,842 | 34,330 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 1,892 | 237 | 957 | 3 | 1,388 | 10,910 | 363 | 480,074 | 5,595 | 7 | 638,664 | 579,386 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 47 | 7 | 23 | <1 | 15 | 4 | <1 | 2,611 | <1 | <1 | 2,618 | 2,375 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 7 | 1 | 2 | <1 | 1 | <1 | <1 | 175 | <1 | <1 | 175 | 159 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **2,729** | **353** | **1,250** | **3** | **1,470** | **10,941** | **365** | **520,201** | **5,600** | **9** | **679,299** | **616,250** |
| Federal CBNG Wells - Sub-total: Construction | 16 | 2 | 12 | <1 | 5 | 1 | <1 | 1,730 | <1 | <1 | 1,735 | 1,574 |
| Federal CBNG Wells - Sub-total: Operations | 2,360 | 244 | 189 | <1 | 345 | 386 | 49 | 35,127 | 1,145 | <1 | 67,241 | 61,000 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 11 | 1 | <1 | <1 | <1 | <1 | <1 | 14 | <1 | <1 | 14 | 13 |
| **Federal CBNG Wells - Total Emissions** | **2,388** | **248** | **201** | **<1** | **350** | **387** | **49** | **36,871** | **1,145** | **<1** | **68,990** | **62,587** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 988 | <1 | <1 | 992 | 900 |
| Non-Federal CBNG Wells - Sub-total: Operations | 1,931 | 200 | 155 | <1 | 282 | 316 | 40 | 28,740 | 937 | <1 | 55,015 | 49,909 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 9 | 1 | <1 | <1 | <1 | <1 | <1 | 11 | <1 | <1 | 11 | 10 |
| **Non-Federal CBNG Wells - Total Emissions** | **1,950** | **202** | **162** | **<1** | **285** | **316** | **40** | **29,740** | **937** | **<1** | **56,017** | **50,819** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **274** | **194** | **85** | **17** | **2,174** | **114** | **11** | **9,172** | **115** | **17** | **16,845** | **15,281** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 59 | 10 | 43 | <1 | 24 | 7 | 1 | 5,079 | <1 | <1 | 5,093 | 4,620 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 4 | <1 | <1 | <1 | 1 | <1 | <1 | 114 | <1 | <1 | 114 | 103 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **62** | **11** | **43** | **<1** | **25** | **7** | **1** | **5,193** | **<1** | **<1** | **5,207** | **4,724** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 21 | 2 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **21** | **2** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-7. Alternative A—Mid-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 122 | 15 | 65 | <1 | 16 | 4 | <1 | 8,082 | 1 | <1 | 8,117 | 7,364 |
| Federal Oil Wells - Sub-total: Operations | 551 | 88 | 9,194 | 2 | 4,799 | 1,060 | 74 | 419,697 | 1,856 | 4 | 472,829 | 428,943 |
| Federal Oil Wells - Sub-total: Maintenance | 412 | 58 | 205 | <1 | 130 | 34 | 3 | 23,026 | <1 | <1 | 23,087 | 20,945 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 95 | <1 | <1 | 95 | 87 |
| **Federal Oil Wells - Total Emissions** | **1,088** | **161** | **9,465** | **3** | **4,945** | **1,098** | **78** | **450,900** | **1,857** | **5** | **504,128** | **457,338** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,779 | 1,614 |
| Non-Federal Oil Wells - Sub-total: Operations | 188 | 30 | 3,142 | 1 | 1,640 | 362 | 25 | 143,441 | 634 | 2 | 161,600 | 146,601 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 141 | 20 | 70 | <1 | 44 | 12 | 1 | 7,870 | <1 | <1 | 7,891 | 7,158 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 33 | <1 | <1 | 33 | 30 |
| **Non-Federal Oil Wells - Total Emissions** | **357** | **53** | **3,227** | **1** | **1,688** | **375** | **26** | **153,100** | **635** | **2** | **171,302** | **155,402** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,331 | 461 | 1,147 | 3 | 302 | 89 | 8 | 165,366 | 50 | 2 | 167,178 | 151,662 |
| Federal Natural Gas Wells - Sub-total: Operations | 7,818 | 982 | 3,984 | 10 | 5,785 | 45,178 | 1,507 | 1,996,656 | 23,331 | 30 | 2,657,907 | 2,411,213 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 193 | 27 | 96 | <1 | 61 | 16 | 2 | 10,790 | <1 | <1 | 10,819 | 9,814 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 17 | 2 | 4 | <1 | 2 | 1 | <1 | 424 | <1 | <1 | 425 | 386 |
| **Federal Natural Gas Wells - Total Emissions** | **11,359** | **1,473** | **5,231** | **13** | **6,150** | **45,283** | **1,518** | **2,173,236** | **23,381** | **32** | **2,836,329** | **2,573,075** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 781 | 108 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | 1 | 39,474 | 35,810 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 2,676 | 336 | 1,363 | 4 | 1,980 | 15,462 | 516 | 683,322 | 7,985 | 10 | 909,632 | 825,204 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 66 | 9 | 33 | <1 | 21 | 5 | 1 | 3,693 | <1 | <1 | 3,703 | 3,359 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 145 | <1 | <1 | 146 | 132 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **3,528** | **454** | **1,666** | **4** | **2,072** | **15,488** | **518** | **725,930** | **7,997** | **12** | **952,954** | **864,505** |
| Federal CBNG Wells - Sub-total: Construction | 14 | 2 | 10 | <1 | 4 | 1 | <1 | 1,515 | <1 | <1 | 1,524 | 1,383 |
| Federal CBNG Wells - Sub-total: Operations | 4,865 | 503 | 400 | <1 | 720 | 796 | 101 | 85,122 | 2,359 | 1 | 151,368 | 137,319 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 12 | 1 | <1 | <1 | <1 | <1 | <1 | 15 | <1 | <1 | 15 | 14 |
| **Federal CBNG Wells - Total Emissions** | **4,891** | **507** | **411** | **<1** | **724** | **797** | **102** | **86,653** | **2,360** | **1** | **152,908** | **138,716** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 1,010 | <1 | <1 | 1,016 | 922 |
| Non-Federal CBNG Wells - Sub-total: Operations | 2,432 | 252 | 200 | <1 | 360 | 398 | 51 | 42,561 | 1,180 | <1 | 75,684 | 68,660 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 6 | 1 | <1 | <1 | <1 | <1 | <1 | 8 | <1 | <1 | 8 | 7 |
| **Non-Federal CBNG Wells - Total Emissions** | **2,448** | **254** | **207** | **<1** | **363** | **399** | **51** | **43,579** | **1,180** | **<1** | **76,708** | **69,589** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **274** | **194** | **85** | **17** | **2,174** | **114** | **11** | **9,172** | **115** | **17** | **16,845** | **15,281** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 59 | 10 | 43 | <1 | 24 | 7 | 1 | 5,079 | <1 | <1 | 5,093 | 4,620 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 4 | <1 | <1 | <1 | 1 | <1 | <1 | 114 | <1 | <1 | 114 | 103 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **62** | **11** | **43** | **<1** | **25** | **7** | **1** | **5,193** | **<1** | **<1** | **5,207** | **4,724** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub- total: Heavy Equipment | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub- total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **7** | **1** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-8. Alternative B—Mid-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 33 | 4 | 17 | <1 | 4 | 1 | <1 | 2,108 | <1 | <1 | 2,117 | 1,921 |
| Federal Oil Wells - Sub-total: Operations | 328 | 52 | 5,470 | 1 | 2,855 | 631 | 44 | 249,693 | 1,104 | 3 | 281,303 | 255,194 |
| Federal Oil Wells - Sub-total: Maintenance | 245 | 35 | 122 | <1 | 77 | 20 | 2 | 13,700 | <1 | <1 | 13,736 | 12,461 |
| Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Oil Wells - Total Emissions** | **607** | **91** | **5,609** | **2** | **2,937** | **652** | **46** | **265,533** | **1,105** | **3** | **297,189** | **269,605** |
| Non-Federal Oil Wells - Sub-total: Construction | 27 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,765 | 1,601 |
| Non-Federal Oil Wells - Sub-total: Operations | 188 | 30 | 3,142 | 1 | 1,640 | 362 | 25 | 143,441 | 634 | 2 | 161,600 | 146,601 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 141 | 20 | 70 | <1 | 44 | 12 | 1 | 7,870 | <1 | <1 | 7,891 | 7,159 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 18 | <1 | <1 | 18 | 17 |
| **Non-Federal Oil Wells - Total Emissions** | **357** | **53** | **3,227** | **1** | **1,688** | **375** | **26** | **153,086** | **635** | **2** | **171,274** | **155,378** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Natural Gas Wells - Sub-total: Construction | 1,546 | 220 | 302 | 1 | 79 | 23 | 2 | 43,517 | 13 | <1 | 43,994 | 39,911 |
| Federal Natural Gas Wells - Sub-total: Operations | 4,647 | 584 | 2,368 | 6 | 3,439 | 26,856 | 896 | 1,186,832 | 13,869 | 18 | 1,579,907 | 1,433,268 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 115 | 16 | 57 | <1 | 36 | 9 | 1 | 6,414 | <1 | <1 | 6,431 | 5,834 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 146 | <1 | <1 | 146 | 133 |
| **Federal Natural Gas Wells - Total Emissions** | **6,314** | **820** | **2,728** | **7** | **3,555** | **26,889** | **899** | **1,236,909** | **13,882** | **18** | **1,630,479** | **1,479,146** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 1,377 | 196 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | <1 | 39,205 | 35,566 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 2,673 | 336 | 1,362 | 4 | 1,978 | 15,446 | 515 | 682,620 | 7,977 | 10 | 908,697 | 824,356 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 66 | 9 | 33 | <1 | 21 | 5 | 1 | 3,689 | <1 | <1 | 3,699 | 3,356 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | <1 | <1 | <1 | 84 | <1 | <1 | 84 | 76 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **4,120** | **541** | **1,665** | **4** | **2,070** | **15,472** | **518** | **725,163** | **7,988** | **11** | **951,685** | **863,355** |
| Federal CBNG Wells - Sub-total: Construction | 7 | 1 | 6 | <1 | 3 | 1 | <1 | 830 | <1 | <1 | 835 | 758 |
| Federal CBNG Wells - Sub-total: Operations | 3,005 | 311 | 247 | <1 | 445 | 491 | 63 | 52,575 | 1,457 | <1 | 93,492 | 84,815 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 9 | <1 | <1 | 9 | 8 |
| **Federal CBNG Wells - Total Emissions** | **3,020** | **313** | **253** | **<1** | **447** | **492** | **63** | **53,415** | **1,457** | **<1** | **94,337** | **85,581** |
| Non-Federal CBNG Wells - Sub-total: Construction | 10 | 2 | 8 | <1 | 4 | 1 | <1 | 1,107 | <1 | <1 | 1,113 | 1,010 |
| Non-Federal CBNG Wells - Sub-total: Operations | 2,361 | 244 | 194 | <1 | 349 | 386 | 49 | 41,309 | 1,145 | <1 | 73,458 | 66,640 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 6 | 1 | <1 | <1 | <1 | <1 | <1 | 7 | <1 | <1 | 7 | 6 |
| **Non-Federal CBNG Wells - Total Emissions** | **2,377** | **247** | **202** | **<1** | **353** | **387** | **49** | **42,424** | **1,145** | **<1** | **74,579** | **67,657** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** | **5,920** | **1** | **<1** | **5,997** | **5,440** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 62 | 13 | 66 | <1 | 37 | 10 | 1 | 7,812 | <1 | <1 | 7,833 | 7,106 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 5 | 1 | <1 | <1 | <1 | <1 | <1 | 80 | <1 | <1 | 80 | 73 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **67** | **14** | **66** | **<1** | **38** | **10** | **1** | **7,892** | **<1** | **<1** | **7,913** | **7,178** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 6 | 1 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 9 | 1 | 2 | <1 | 1 | <1 | <1 | 334 | 3,222 | <1 | 90,550 | 82,145 |
| **Federal Livestock Grazing - Total Emissions** | **16** | **2** | **4** | **<1** | **2** | **<1** | **<1** | **550** | **3,222** | **<1** | **90,766** | **82,341** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 28 | 3 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **28** | **3** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-9. Alternative C—Mid-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 127 | 15 | 68 | <1 | 17 | 5 | <1 | 8,433 | 1 | <1 | 8,470 | 7,684 |
| Federal Oil Wells - Sub-total: Operations | 560 | 89 | 9,339 | 2 | 4,874 | 1,077 | 75 | 426,337 | 1,885 | 4 | 480,310 | 435,730 |
| Federal Oil Wells - Sub-total: Maintenance | 419 | 59 | 209 | <1 | 132 | 35 | 3 | 23,390 | <1 | <1 | 23,453 | 21,276 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 99 | <1 | <1 | 99 | 90 |
| **Federal Oil Wells - Total Emissions** | **1,108** | **164** | **9,617** | **3** | **5,024** | **1,116** | **79** | **458,260** | **1,886** | **5** | **512,332** | **464,780** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,779 | 1,614 |
| Non-Federal Oil Wells - Sub-total: Operations | 188 | 30 | 3,142 | 1 | 1,640 | 362 | 25 | 143,441 | 634 | 2 | 161,600 | 146,601 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 141 | 20 | 70 | <1 | 44 | 12 | 1 | 7,870 | <1 | <1 | 7,891 | 7,158 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 33 | <1 | <1 | 33 | 30 |
| **Non-Federal Oil Wells - Total Emissions** | **357** | **53** | **3,227** | **1** | **1,688** | **375** | **26** | **153,101** | **635** | **2** | **171,303** | **155,404** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,386 | 469 | 1,180 | 3 | 311 | 91 | 9 | 170,113 | 51 | 2 | 171,978 | 156,015 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Natural Gas Wells - Sub-total: Operations | 7,937 | 997 | 4,044 | 11 | 5,872 | 45,861 | 1,530 | 2,026,857 | 23,683 | 31 | 2,698,110 | 2,447,685 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 196 | 28 | 98 | <1 | 62 | 16 | 2 | 10,953 | <1 | <1 | 10,982 | 9,963 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 17 | 2 | 4 | <1 | 2 | 1 | <1 | 435 | <1 | <1 | 436 | 396 |
| **Federal Natural Gas Wells - Total Emissions** | **11,536** | **1,495** | **5,326** | **14** | **6,247** | **45,969** | **1,541** | **2,208,359** | **23,735** | **32** | **2,881,506** | **2,614,059** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 772 | 107 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | 1 | 39,484 | 35,819 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 2,684 | 337 | 1,368 | 4 | 1,986 | 15,510 | 517 | 685,429 | 8,009 | 10 | 912,436 | 827,748 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 66 | 9 | 33 | <1 | 21 | 5 | 1 | 3,704 | <1 | <1 | 3,714 | 3,369 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 147 | <1 | <1 | 148 | 134 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **3,528** | **454** | **1,671** | **4** | **2,078** | **15,536** | **520** | **728,051** | **8,021** | **12** | **955,782** | **867,071** |
| Federal CBNG Wells - Sub-total: Construction | 16 | 2 | 12 | <1 | 5 | 1 | <1 | 1,730 | <1 | <1 | 1,740 | 1,579 |
| Federal CBNG Wells - Sub-total: Operations | 5,365 | 555 | 442 | <1 | 794 | 878 | 112 | 93,885 | 2,602 | 1 | 166,951 | 151,455 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 14 | 1 | <1 | <1 | <1 | <1 | <1 | 17 | <1 | <1 | 17 | 16 |
| **Federal CBNG Wells - Total Emissions** | **5,396** | **559** | **454** | **1** | **799** | **879** | **112** | **95,632** | **2,602** | **1** | **168,708** | **53,050** |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 988 | <1 | <1 | 994 | 902 |
| Non-Federal CBNG Wells - Sub-total: Operations | 2,575 | 267 | 212 | <1 | 381 | 421 | 54 | 45,065 | 1,249 | <1 | 80,136 | 72,699 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 8 | <1 | <1 | 8 | 7 |
| **Non-Federal CBNG Wells - Total Emissions** | **2,591** | **269** | **219** | **<1** | **384** | **422** | **54** | **46,062** | **1,249** | **<1** | **81,139** | **73,608** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology- Total Emissions** | **1,203** | **945** | **343** | **83** | **10,816** | **557** | **56** | **11,340** | **572** | **83** | **49,372** | **44,790** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 82 | 14 | 55 | <1 | 31 | 9 | 1 | 6,556 | <1 | <1 | 6,573 | 5,963 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 207 | <1 | <1 | 208 | 189 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **87** | **15** | **56** | **<1** | **32** | **9** | **1** | **6,763** | **<1** | **<1** | **6,781** | **6,151** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads- Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 21 | 2 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **21** | **2** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-10. Alternative D—Mid-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 122 | 15 | 65 | <1 | 16 | 4 | <1 | 8,082 | 1 | <1 | 8,117 | 7,364 |
| Federal Oil Wells - Sub-total: Operations | 548 | 87 | 9,136 | 2 | 4,768 | 1,053 | 73 | 417,040 | 1,844 | 4 | 469,836 | 426,228 |
| Federal Oil Wells - Sub-total: Maintenance | 410 | 58 | 204 | <1 | 129 | 34 | 3 | 22,880 | <1 | <1 | 22,941 | 20,812 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 95 | <1 | <1 | 95 | 86 |
| **Federal Oil Wells - Total Emissions** | **1,082** | **160** | **9,406** | **3** | **4,914** | **1,092** | **77** | **448,097** | **1,845** | **5** | **500,990** | **454,490** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,779 | 1,614 |
| Non-Federal Oil Wells - Sub-total: Operations | 188 | 30 | 3,142 | 1 | 1,640 | 362 | 25 | 143,441 | 634 | 2 | 161,600 | 146,601 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 141 | 20 | 70 | <1 | 44 | 12 | 1 | 7,870 | <1 | <1 | 7,891 | 7,158 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 30 |
| **Non-Federal Oil Wells - Total Emissions** | **357** | **53** | **3,227** | **1** | **1,688** | **375** | **26** | **153,100** | **635** | **2** | **171,302** | **155,402** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,312 | 459 | 1,136 | 3 | 299 | 88 | 8 | 163,784 | 50 | 2 | 165,578 | 150,210 |
| Federal Natural Gas Wells - Sub-total: Operations | 7,777 | 977 | 3,963 | 10 | 5,754 | 44,940 | 1,499 | 1,986,120 | 23,207 | 30 | 2,643,882 | 2,398,490 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 192 | 27 | 96 | <1 | 61 | 16 | 2 | 10,733 | <1 | <1 | 10,761 | 9,763 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Natural Gas Wells - Sub-total: Reclamation | 17 | 2 | 4 | <1 | 2 | 1 | <1 | 420 | <1 | <1 | 421 | 382 |
| **Federal Natural Gas Wells - Total Emissions** | **11,298** | **1,465** | **5,199** | **13** | **6,116** | **45,044** | **1,509** | **2,161,057** | **23,257** | **32** | **2,820,643** | **2,558,845** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 784 | 109 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | 1 | 39,470 | 35,807 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 2,684 | 337 | 1,368 | 4 | 1,986 | 15,510 | 517 | 685,429 | 8,009 | 10 | 912,436 | 827,748 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 66 | 9 | 33 | <1 | 21 | 5 | 1 | 3,704 | <1 | <1 | 3,714 | 3,369 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 145 | <1 | <1 | 145 | 132 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **3,540** | **456** | **1,671** | **4** | **2,078** | **15,536** | **520** | **728,048** | **8,021** | **12** | **955,766** | **867,056** |
| Federal CBNG Wells - Sub-total: Construction | 16 | 2 | 12 | <1 | 5 | 1 | <1 | 1,730 | <1 | <1 | 1,740 | 1,579 |
| Federal CBNG Wells - Sub-total: Operations | 5,151 | 533 | 424 | <1 | 762 | 843 | 107 | 90,129 | 2,498 | 1 | 160,273 | 145,397 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 14 | 1 | <1 | <1 | <1 | <1 | <1 | 17 | <1 | <1 | 17 | 15 |
| **Federal CBNG Wells - Total Emissions** | **5,181** | **537** | **436** | **1** | **767** | **844** | **108** | **91,876** | **2,498** | **1** | **162,030** | **146,991** |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 988 | <1 | <1 | 994 | 902 |
| Non-Federal CBNG Wells - Sub-total: Operations | 2,575 | 267 | 212 | <1 | 381 | 421 | 54 | 45,065 | 1,249 | <1 | 80,136 | 72,699 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 8 | <1 | <1 | 8 | 8 |
| **Non-Federal CBNG Wells - Total Emissions** | **2,592** | **269** | **219** | **<1** | **384** | **422** | **54** | **46,062** | **1,249** | **<1** | **81,139** | **73,608** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **274** | **194** | **85** | **17** | **2,174** | **114** | **11** | **9,172** | **115** | **17** | **16,845** | **15,281** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 59 | 10 | 43 | <1 | 24 | 7 | 1 | 5,079 | <1 | <1 | 5,093 | 4,620 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 4 | <1 | <1 | <1 | 1 | <1 | <1 | 114 | <1 | <1 | 114 | 103 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **62** | **11** | **43** | **<1** | **25** | **7** | **1** | **5,193** | **<1** | **<1** | **5,207** | **4,724** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 21 | 2 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **21** | **2** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-11. Alternative A—Long-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 122 | 15 | 65 | <1 | 16 | 4 | <1 | 8,082 | 1 | <1 | 8,117 | 7,364 |
| Federal Oil Wells - Sub-total: Operations | 833 | 133 | 13,907 | 3 | 7,258 | 1,603 | 112 | 634,857 | 2,807 | 7 | 715,228 | 648,844 |
| Federal Oil Wells - Sub-total: Maintenance | 623 | 88 | 311 | 1 | 196 | 51 | 5 | 34,829 | 1 | <1 | 34,922 | 31,681 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 98 | <1 | <1 | 98 | 89 |
| **Federal Oil Wells - Total Emissions** | **1,581** | **236** | **14,284** | **4** | **7,472** | **1,659** | **117** | **677,867** | **2,808** | **7** | **758,365** | **687,978** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,779 | 1,614 |
| Non-Federal Oil Wells - Sub-total: Operations | 251 | 40 | 4,190 | 1 | 2,187 | 483 | 34 | 191,254 | 846 | 2 | 215,466 | 195,486 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 188 | 26 | 94 | <1 | 59 | 15 | 2 | 10,492 | <1 | <1 | 10,520 | 9,544 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 30 | <1 | <1 | 30 | 27 |
| **Non-Federal Oil Wells - Total Emissions** | **466** | **70** | **4,298** | **1** | **2,250** | **499** | **35** | **203,533** | **846** | **2** | **227,795** | **206,652** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,331 | 461 | 1,147 | 3 | 302 | 89 | 8 | 165,366 | 50 | 2 | 167,178 | 151,704 |
| Federal Natural Gas Wells - Sub-total: Operations | 11,835 | 1,487 | 6,030 | 16 | 8,757 | 68,395 | 2,282 | 3,022,623 | 35,320 | 46 | 4,023,687 | 3,650,228 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 292 | 41 | 146 | <1 | 92 | 24 | 2 | 16,334 | <1 | <1 | 16,377 | 14,857 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 17 | 2 | 4 | <1 | 2 | 1 | <1 | 438 | <1 | <1 | 439 | 398 |
| **Federal Natural Gas Wells - Total Emissions** | **15,475** | **1,991** | **7,327** | **19** | **9,154** | **68,508** | **2,293** | **3,204,761** | **35,370** | **47** | **4,207,681** | **3,817,145** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 781 | 108 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | 1 | 39,474 | 35,810 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 3,558 | 447 | 1,813 | 5 | 2,633 | 20,563 | 686 | 908,740 | 10,619 | 14 | 1,209,711 | 1,097,431 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 88 | 12 | 44 | <1 | 28 | 7 | 1 | 4,911 | <1 | <1 | 4,924 | 4,467 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 5 | 1 | 1 | <1 | 1 | <1 | <1 | 132 | <1 | <1 | 132 | 120 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **4,432** | **568** | **2,127** | **5** | **2,732** | **20,591** | **689** | **952,553** | **10,631** | **15** | **1,254,240** | **1,137,828** |
| Federal CBNG Wells - Sub-total: Construction | 14 | 2 | 10 | <1 | 4 | 1 | <1 | 1,515 | <1 | <1 | 1,524 | 1,383 |
| Federal CBNG Wells - Sub-total: Operations | 7,154 | 740 | 589 | 1 | 1,059 | 1,170 | 149 | 125,179 | 3,470 | 1 | 222,600 | 201,940 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 12 | 1 | <1 | <1 | <1 | <1 | <1 | 15 | <1 | <1 | 15 | 13 |
| **Federal CBNG Wells - Total Emissions** | **7,180** | **744** | **599** | **1** | **1,063** | **1,171** | **149** | **126,709** | **3,470** | **1** | **224,139** | **203,336** |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 1,010 | <1 | <1 | 1,016 | 922 |
| Non-Federal CBNG Wells - Sub-total: Operations | 4,221 | 437 | 347 | <1 | 625 | 690 | 88 | 73,856 | 2,047 | 1 | 131,334 | 119,144 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 9 | <1 | <1 | 9 | 8 |
| **Non-Federal CBNG Wells - Total Emissions** | **4,237** | **439** | **354** | **<1** | **628** | **691** | **88** | **74,874** | **2,047** | **1** | **132,359** | **120,074** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **274** | **194** | **85** | **17** | **2,174** | **114** | **11** | **9,172** | **115** | **17** | **16,845** | **15,281** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 59 | 10 | 43 | <1 | 24 | 7 | 1 | 5,079 | <1 | <1 | 5,093 | 4,620 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 4 | <1 | <1 | <1 | 1 | <1 | <1 | 114 | <1 | <1 | 114 | 103 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **62** | **11** | **43** | **<1** | **25** | **7** | **1** | **5,193** | **<1** | **<1** | **5,207** | **4,724** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **7** | **1** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

## Table P-12. Alternative B—Long-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 33 | 4 | 17 | <1 | 4 | 1 | <1 | 2,108 | <1 | <1 | 2,117 | 1,921 |
| Federal Oil Wells - Sub-total: Operations | 387 | 62 | 6,459 | 2 | 3,371 | 745 | 52 | 294,850 | 1,304 | 3 | 332,177 | 301,346 |
| Federal Oil Wells - Sub-total: Maintenance | 290 | 41 | 144 | <1 | 91 | 24 | 2 | 16,177 | <1 | <1 | 16,220 | 14,715 |
| Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 30 | <1 | <1 | 31 | 28 |
| **Federal Oil Wells - Total Emissions** | **711** | **107** | **6,620** | **2** | **3,467** | **770** | **54** | **313,166** | **1,304** | **3** | **350,545** | **318,009** |
| Non-Federal Oil Wells - Sub-total: Construction | 27 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,765 | 1,601 |
| Non-Federal Oil Wells - Sub-total: Operations | 251 | 40 | 4,190 | 1 | 2,187 | 483 | 34 | 191,254 | 846 | 2 | 215,466 | 195,468 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 188 | 26 | 94 | <1 | 59 | 15 | 2 | 10,493 | <1 | <1 | 10,521 | 9,545 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 20 | <1 | <1 | 20 | 18 |
| **Non-Federal Oil Wells - Total Emissions** | **467** | **70** | **4,298** | **1** | **2,250** | **499** | **35** | **203,524** | **846** | **2** | **227,772** | **206,632** |
| Federal Natural Gas Wells - Sub-total: Construction | 1,546 | 220 | 302 | 1 | 79 | 23 | 2 | 43,517 | 13 | <1 | 43,994 | 39,911 |
| Federal Natural Gas Wells - Sub-total: Operations | 5,491 | 690 | 2,798 | 7 | 4,063 | 31,734 | 1,059 | 1,402,418 | 16,388 | 21 | 1,866,899 | 1,693,623 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 136 | 19 | 68 | <1 | 43 | 11 | 1 | 7,579 | <1 | <1 | 7,599 | 6,894 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 139 | <1 | <1 | 140 | 127 |
| **Federal Natural Gas Wells - Total Emissions** | **7,178** | **929** | **3,168** | **8** | **4,186** | **31,769** | **1,062** | **1,453,654** | **16,401** | **22** | **1,918,632** | **1,740,554** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 1,377 | 196 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | <1 | 39,205 | 35,566 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 3,555 | 447 | 1,812 | 5 | 2,631 | 20,547 | 686 | 908,038 | 10,611 | 14 | 1,208,776 | 1,096,583 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 88 | 12 | 44 | <1 | 28 | 7 | 1 | 4,907 | <1 | <1 | 4,920 | 4,464 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 4 | <1 | 1 | <1 | 1 | <1 | <1 | 90 | <1 | <1 | 90 | 82 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Non-Federal Natural Gas Wells - Total Emissions** | **5,024** | **655** | **2,125** | **5** | **2,730** | **20,575** | **688** | **951,806** | **10,623** | **14** | **1,252,992** | **1,136,696** |
| Federal CBNG Wells - Sub-total: Construction | 7 | 1 | 6 | <1 | 3 | 1 | <1 | 830 | <1 | <1 | 835 | 758 |
| Federal CBNG Wells - Sub-total: Operations | 3,505 | 363 | 289 | <1 | 519 | 573 | 73 | 61,338 | 1,700 | 1 | 109,074 | 98,950 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 6 | 1 | <1 | <1 | <1 | <1 | <1 | 7 | <1 | <1 | 7 | 7 |
| **Federal CBNG Wells - Total Emissions** | **3,519** | **365** | **294** | **<1** | **521** | **574** | **73** | **62,176** | **1,700** | **1** | **109,917** | **99,715** |
| Non-Federal CBNG Wells - Sub-total: Construction | 10 | 2 | 8 | <1 | 4 | 1 | <1 | 1,107 | <1 | <1 | 1,113 | 1,010 |
| Non-Federal CBNG Wells - Sub-total: Operations | 4,149 | 429 | 342 | <1 | 614 | 679 | 87 | 72,604 | 2,012 | 1 | 129,108 | 117,125 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 9 | <1 | <1 | 9 | 8 |
| **Non-Federal CBNG Wells - Total Emissions** | **4,167** | **432** | **349** | **<1** | **618** | **680** | **87** | **73,720** | **2,013** | **1** | **130,231** | **118,143** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** | **5,920** | **1** | **<1** | **5,997** | **5,440** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 62 | 13 | 66 | <1 | 37 | 10 | 1 | 7,812 | <1 | <1 | 7,833 | 7,106 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 5 | 1 | <1 | <1 | <1 | <1 | <1 | 80 | <1 | <1 | 80 | 73 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **67** | **14** | **66** | **<1** | **38** | **10** | **1** | **7,892** | **<1** | **<1** | **7,913** | **7,178** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 6 | 1 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 9 | 1 | 2 | <1 | 1 | <1 | <1 | 334 | 3,222 | <1 | 90,550 | 82,145 |
| **Federal Livestock Grazing - Total Emissions** | **16** | **2** | **4** | **<1** | **2** | **<1** | **<1** | **550** | **3,222** | **<1** | **90,766** | **82,341** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 28 | 3 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **28** | **3** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

**Table P-13. Alternative C—Long-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)**

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 127 | 15 | 68 | <1 | 17 | 5 | <1 | 8,433 | 1 | <1 | 8,470 | 7,684 |
| Federal Oil Wells - Sub-total: Operations | 851 | 136 | 14,198 | 3 | 7,410 | 1,637 | 114 | 648,139 | 2,866 | 7 | 730,191 | 662,418 |
| Federal Oil Wells - Sub-total: Maintenance | 636 | 90 | 317 | 1 | 201 | 53 | 5 | 35,558 | 1 | <1 | 35,652 | 32,343 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 102 | <1 | <1 | 102 | 93 |
| **Federal Oil Wells - Total Emissions** | **1,617** | **241** | **14,584** | **4** | **7,629** | **1,694** | **120** | **692,232** | **2,867** | **7** | **774,416** | **702,538** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,779 | 1,614 |
| Non-Federal Oil Wells - Sub-total: Operations | 253 | 40 | 4,219 | 1 | 2,202 | 486 | 34 | 192,582 | 852 | 2 | 216,963 | 196,825 |
| Non-Federal Oil Wells - Sub-total: Maintenance | 189 | 27 | 94 | <1 | 60 | 16 | 2 | 10,565 | <1 | <1 | 10,593 | 9,610 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 30 | <1 | <1 | 30 | 28 |
| **Non-Federal Oil Wells - Total Emissions** | **469** | **70** | **4,327** | **1** | **2,265** | **503** | **36** | **204,935** | **852** | **2** | **229,366** | **208,077** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,386 | 469 | 1,180 | 3 | 3,386 | 91 | 9 | 170,113 | 51 | 2 | 171,978 | 156,015 |
| Federal Natural Gas Wells - Sub-total: Operations | 12,072 | 1,516 | 6,151 | 16 | 12,072 | 69,761 | 2,328 | 3,083,021 | 36,026 | 47 | 4,104,088 | 3,723,167 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 298 | 42 | 149 | <1 | 298 | 25 | 2 | 16,660 | <1 | <1 | 16,705 | 15,154 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 18 | 2 | 4 | <1 | 3 | 1 | <1 | 446 | <1 | <1 | 450 | 409 |
| **Federal Natural Gas Wells - Total Emissions** | **15,773** | **2,029** | **7,484** | **19** | **9,340** | **69,878** | **2,339** | **3,270,244** | **36,078** | **48** | **4,293,220** | **3,894,745** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 772 | 107 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | 1 | 39,484 | 35,819 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 3,580 | 450 | 1,824 | 5 | 2,649 | 20,690 | 690 | 914,358 | 10,685 | 14 | 1,217,189 | 1,104,216 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 88 | 12 | 44 | <1 | 28 | 7 | 1 | 4,941 | <1 | <1 | 4,954 | 4,494 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 5 | 1 | 1 | <1 | 1 | <1 | <1 | 133 | <1 | <1 | 134 | 121 |
| **Non-Federal Natural Gas Wells - Total Emissions** | **4,445** | **570** | **2,138** | **6** | **2,749** | **20,718** | **693** | **958,203** | **10,696** | **15** | **1,261,761** | **1,144,651** |
| Federal CBNG Wells - Sub-total: Construction | 16 | 2 | 12 | <1 | 5 | 1 | <1 | 1,730 | <1 | <1 | 1,740 | 1,579 |
| Federal CBNG Wells - Sub-total: Operations | 8,155 | 844 | 671 | 1 | 1,207 | 1,334 | 170 | 142,704 | 3,955 | 1 | 253,764 | 230,211 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 13 | 1 | <1 | <1 | <1 | <1 | <1 | 16 | <1 | <1 | 16 | 15 |
| **Federal CBNG Wells - Total Emissions** | **8,185** | **848** | **683** | **1** | **1,212** | **1,335** | **170** | **144,450** | **3,956** | **1** | **255,521** | **231,805** |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 988 | <1 | <1 | 994 | 902 |
| Non-Federal CBNG Wells - Sub-total: Operations | 4,578 | 474 | 377 | <1 | 678 | 749 | 96 | 80,115 | 2,221 | 1 | 142,464 | 129,241 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 7 | 1 | <1 | <1 | <1 | <1 | <1 | 9 | <1 | <1 | 9 | 8 |
| **Non-Federal CBNG Wells - Total Emissions** | **4,595** | **476** | **384** | **<1** | **680** | **749** | **96** | **81,112** | **2,221** | **1** | **143,468** | **130,152** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,902 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,497 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **1,203** | **945** | **343** | **83** | **10,816** | **557** | **56** | **11,340** | **572** | **83** | **49,372** | **44,790** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 82 | 14 | 55 | <1 | 31 | 9 | 1 | 6,556 | <1 | <1 | 6,573 | 5,963 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 6 | 1 | 1 | <1 | 1 | <1 | <1 | 207 | <1 | <1 | 208 | 189 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **87** | **15** | **56** | **<1** | **32** | **9** | **1** | **6,763** | **<1** | **<1** | **6,781** | **6,151** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 21 | 2 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **21** | **2** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

## Table P-14. Alternative D—Long-year Air Emissions Summary, Total Annual Emissions, All Project Resources (Tons)

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Federal Oil Wells - Sub-total: Construction | 122 | 15 | 65 | <1 | 16 | 4 | <1 | 8,082 | 1 | <1 | 8,117 | 7,364 |
| Federal Oil Wells - Sub-total: Operations | 828 | 132 | 13,820 | 3 | 7,213 | 1,593 | 111 | 630,873 | 2,790 | 7 | 710,739 | 644,772 |
| Federal Oil Wells - Sub-total: Maintenance | 619 | 87 | 309 | 1 | 195 | 51 | 5 | 34,611 | 1 | <1 | 34,703 | 31,482 |
| Federal Oil Wells - Sub-total: Reclamation | 3 | <1 | 1 | <1 | 1 | <1 | <1 | 98 | <1 | <1 | 98 | 89 |
| **Federal Oil Wells - Total Emissions** | **1,572** | **235** | **14,195** | **4** | **7,425** | **1,649** | **117** | **673,663** | **2,791** | **7** | **753,657** | **683,706** |
| Non-Federal Oil Wells - Sub-total: Construction | 26 | 3 | 14 | <1 | 4 | 1 | <1 | 1,757 | <1 | <1 | 1,779 | 1,614 |
| Non-Federal Oil Wells - Sub-total: Operations | 253 | 40 | 4,219 | 1 | 2,202 | 486 | 34 | 192,582 | 852 | 2 | 216,963 | 196,825 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal Oil Wells - Sub-total: Maintenance | 189 | 27 | 94 | <1 | 60 | 16 | 2 | 10,565 | <1 | <1 | 10,593 | 9,610 |
| Non-Federal Oil Wells - Sub-total: Reclamation | 1 | <1 | <1 | <1 | <1 | <1 | <1 | 30 | <1 | <1 | 30 | 27 |
| **Non-Federal Oil Wells - Total Emissions** | **469** | **70** | **4,327** | **1** | **2,265** | **503** | **36** | **204,934** | **852** | **2** | **229,365** | **208,076** |
| Federal Natural Gas Wells - Sub-total: Construction | 3,312 | 459 | 1,136 | 3 | 299 | 88 | 8 | 163,784 | 50 | 2 | 165,578 | 150,210 |
| Federal Natural Gas Wells - Sub-total: Operations | 11,750 | 1,476 | 5,987 | 16 | 8,694 | 67,902 | 2,266 | 3,000,852 | 35,066 | 45 | 3,994,705 | 3,623,937 |
| Federal Natural Gas Wells - Sub-total: Maintenance | 290 | 41 | 145 | <1 | 91 | 24 | 2 | 16,216 | <1 | <1 | 16,259 | 14,750 |
| Federal Natural Gas Wells - Sub-total: Reclamation | 17 | 2 | 4 | <1 | 2 | 1 | <1 | 433 | <1 | <1 | 434 | 394 |
| **Federal Natural Gas Wells - Total Emissions** | **15,369** | **1,978** | **7,272** | **19** | **9,087** | **68,015** | **2,276** | **3,181,285** | **35,115** | **47** | **4,176,977** | **3,789,291** |
| Non-Federal Natural Gas Wells - Sub-total: Construction | 784 | 109 | 269 | 1 | 71 | 21 | 2 | 38,770 | 12 | 1 | 39,470 | 35,807 |
| Non-Federal Natural Gas Wells - Sub-total: Operations | 3,580 | 450 | 1,824 | 5 | 2,649 | 20,690 | 690 | 914,358 | 10,685 | 14 | 1,217,189 | 1,104,216 |
| Non-Federal Natural Gas Wells - Sub-total: Maintenance | 88 | 12 | 44 | <1 | 28 | 7 | 1 | 4,941 | <1 | <1 | 4,954 | 4,494 |
| Non-Federal Natural Gas Wells - Sub-total: Reclamation | 5 | 1 | 1 | <1 | 1 | <1 | <1 | 132 | <1 | <1 | 132 | 120 |
| Non-Federal Natural Gas Wells - Total Emissions | **4,458** | **571** | **2,138** | **6** | **2,749** | **20,718** | **693** | **958,201** | **10,696** | **15** | **1,261,746** | **1,144,637** |
| Federal CBNG Wells - Sub-total: Construction | 16 | 2 | 12 | <1 | 5 | 1 | <1 | 1,730 | <1 | <1 | 1,740 | 1,579 |
| Federal CBNG Wells - Sub-total: Operations | 7,654 | 792 | 630 | 1 | 1,133 | 1,252 | 160 | 133,942 | 3,712 | 1 | 238,182 | 216,075 |
| Federal CBNG Wells - Sub-total: Maintenance | 1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Federal CBNG Wells - Sub-total: Reclamation | 13 | 1 | <1 | <1 | <1 | <1 | <1 | 16 | <1 | <1 | 16 | 14 |
| **Federal CBNG Wells - Total Emissions** | **7,684** | **796** | **642** | **1** | **1,138** | **1,253** | **160** | **135,687** | **3,713** | **1** | **239,939** | **217,669** |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| Non-Federal CBNG Wells - Sub-total: Construction | 9 | 1 | 7 | <1 | 3 | 1 | <1 | 988 | <1 | <1 | 994 | 902 |
| Non-Federal CBNG Wells - Sub-total: Operations | 4,578 | 474 | 377 | <1 | 678 | 749 | 96 | 80,115 | 2,221 | 1 | 142,464 | 129,241 |
| Non-Federal CBNG Wells - Sub-total: Maintenance | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Non-Federal CBNG Wells - Sub-total: Reclamation | 8 | 1 | <1 | <1 | <1 | <1 | <1 | 10 | <1 | <1 | 10 | 9 |
| **Non-Federal CBNG Wells - Total Emissions** | **4,595** | **476** | **384** | **<1** | **680** | **750** | **96** | **81,113** | **2,221** | **1** | **143,468** | **130,152** |
| Federal Sand and Gravel - Extraction and Processing Sub-total: | 251 | 26 | 2 | <1 | 1 | <1 | <1 | 215 | <1 | <1 | 216 | 196 |
| Federal Sand and Gravel - Travel and Reclamation Sub-total: | 7 | <1 | <1 | <1 | <1 | <1 | <1 | 32 | <1 | <1 | 32 | 29 |
| **Federal Sand and Gravel - Total Emissions** | **258** | **26** | **2** | **<1** | **1** | **<1** | **<1** | **247** | **<1** | **<1** | **248** | **225** |
| Federal Coal Mining - Sub-total: Extraction and Processing | 6,989 | 931 | 2,244 | 5 | 1,419 | 371 | 37 | 251,580 | 5 | 2 | 252,250 | 228,837 |
| Federal Coal Mining - Sub-total: Travel and Reclamation | 125 | 14 | 14 | <1 | 9 | 2 | <1 | 1,645 | <1 | <1 | 1,649 | 1,496 |
| **Federal Coal Mining - Total Emissions** | **7,114** | **945** | **2,258** | **5** | **1,428** | **374** | **37** | **253,225** | **5** | **2** | **253,899** | **230,334** |
| **Federal Fire Management and Ecology - Total Emissions** | **274** | **194** | **85** | **17** | **2,174** | **114** | **11** | **9,172** | **115** | **17** | **16,845** | **15,281** |
| Federal Land Resources (ROW and RE) - Sub-total: Heavy Equipment | 59 | 10 | 43 | <1 | 24 | 7 | 1 | 5,079 | <1 | <1 | 5,093 | 4,620 |
| Federal Land Resources (ROW and RE) - Sub-total: Commuting Vehicles | 4 | <1 | <1 | <1 | 1 | <1 | <1 | 114 | <1 | <1 | 114 | 103 |
| **Federal Land Resources (ROW and RE) - Total Emissions** | **62** | **11** | **43** | **<1** | **25** | **7** | **1** | **5,193** | **<1** | **<1** | **5,207** | **4,724** |
| Federal Livestock Grazing - Sub-total: Heavy Equipment | 26 | 3 | 2 | <1 | 1 | <1 | <1 | 216 | <1 | <1 | 216 | 196 |
| Federal Livestock Grazing - Sub-total: Commuting Vehicles | 38 | 4 | 8 | <1 | 2 | <1 | <1 | 1,482 | 11,216 | <1 | 315,535 | 286,248 |

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | HAPs | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2eq}$ | $CO_{2eq}$ metric tonnes |
| **Federal Livestock Grazing - Total Emissions** | **64** | **7** | **9** | **<1** | **3** | **1** | **<1** | **1,698** | **11,216** | **<1** | **315,751** | **286,444** |
| **Federal Trails and Roads - Total Emissions** | **2** | **1** | **4** | **<1** | **3** | **1** | **<1** | **496** | **<1** | **<1** | **497** | **451** |
| Federal Vegetation Management - Sub-total: Heavy Equipment | 21 | 2 | <1 | <1 | <1 | <1 | <1 | 35 | <1 | <1 | 35 | 32 |
| Federal Vegetation Management - Sub-total: Commuting Vehicles | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **Federal Vegetation Management - Total Emissions** | **21** | **2** | **<1** | **<1** | **<1** | **<1** | **<1** | **35** | **<1** | **<1** | **35** | **32** |
| **Federal BLM General Purpose Travel - Total Emissions** | **28** | **3** | **<1** | **<1** | **2** | **<1** | **<1** | **150** | **<1** | **<1** | **151** | **137** |

## Table P-15. Trona Mining Activities, Annual Emissions Summary (Tons)

| Activity | Criteria Pollutants | | | | | Organics | | Greenhouse Gases | |
|---|---|---|---|---|---|---|---|---|---|
| | $PM_{10}$ | $PM_{2.5}$ | $NO_x$ | $SO_2$ | CO | VOC | $HAPs_a$ | $CO_{2eq}$ tons | $CO_{2eq}$ metric tonnes |
| Mobile Source Emissions | 50 | 50** | 1,047 | 1 | 462 | 84 | 8 | 94,646 | 85,870 |
| Trona Mine Operation Activities | 664 | 455 | 466 | 4 | 1,666 | 415 | 41 | 850,045 | 771,148 |
| **Total** | **713** | **505** | **1,513** | **5** | **2,129** | **499** | **50** | **944,701** | **857,018** |

[a] HAPs = Hazardous Air Pollutants; assumed = VOCs * <1.1

**$PM_{2.5}$ was calculated at the same emissions rate as $PM_{10}$ for Locomotives to have consistency with the BLM's Excel spreadsheet-based emissions calculators. Typically, $PM_{2.5}$ would be a percentage of $PM_{10}$.

## Table P-16. General Overall Inputs for Oil Production – Alternative A

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 23.0 | 23.0 | 23.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 5.0 | 5.0 | 5.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 171.0 | 316.0 | 478.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 76.0 | 108.0 | 144.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Barrels of Oil Production per Well per Day - Federal | 16 | 44.0 | 44.0 |
| Average Barrels of Oil Production per Well per Day - Non-Federal | 16 | 44.0 | 44.0 |
| Average Gas Production per Well per Day -Federal (thousand standard cubic feet [MSCF]/day) | 8.0 | 22.0 | 22.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |

## Table P-17. General Overall Inputs for Oil Production – Alternative B

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 6.0 | 6.0 | 6.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 5.0 | 5.0 | 5.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 158.0 | 188.0 | 222.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 76.0 | 108.0 | 144.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Barrels of Oil Production per Well per Day - Federal | 16 | 44.0 | 44.0 |
| Average Barrels of Oil Production per Well per Day - Non-Federal | 16 | 44.0 | 44.0 |
| Average Gas Production per Well per Day -Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |

## Table P-18. General Overall Inputs for Oil Production – Alternative C

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 24.0 | 24.0 | 24.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 5.0 | 5.0 | 5.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 172.0 | 321.0 | 488.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 76.0 | 108.0 | 145.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Barrels of Oil Production per Well per Day - Federal | 16 | 44.0 | 44.0 |
| Average Barrels of Oil Production per Well per Day - Non-Federal | 16 | 44.0 | 44.0 |
| Average Gas Production per Well per Day -Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |

## Table P-19. General Overall Inputs for Oil Production – Alternative D

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 23.0 | 23.0 | 23.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 5.0 | 5.0 | 5.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 171.0 | 314.0 | 475.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 76.0 | 108.0 | 145.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Average Barrels of Oil Production per Well per Day - Federal | 16 | 44.0 | 44.0 |
| Average Barrels of Oil Production per Well per Day - Non-Federal | 16 | 44.0 | 44.0 |
| Average Gas Production per Well per Day -Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 8.0 | 22.0 | 22.0 |

## Table P-20. General Overall Inputs for Natural Gas Production – Alternative A

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 209.0 | 209.0 | 209.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 49.0 | 49.0 | 49.0 |
| Average Number of Wells per Well Pad - Federal | 2.0 | 3.0 | 3.0 |
| Average Number of Wells per Well Pad - Non-Federal | 2.0 | 3.0 | 3.0 |
| Maximum Number of Wells Producing Annually - Federal | 1,539.0 | 2,843.0 | 4,304.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 687.0 | 973.0 | 1,294.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 7.0 | 7.0 | 7.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |

## Table P-21. General Overall Inputs for Natural Gas Production – Alternative B

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 55.0 | 55.0 | 55.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 49.0 | 49.0 | 49.0 |
| Average Number of Wells per Well Pad - Federal | 2.0 | 3.0 | 3.0 |
| Average Number of Wells per Well Pad - Non-Federal | 2.0 | 3.0 | 3.0 |
| Maximum Number of Wells Producing Annually - Federal | 1,424.0 | 1,690.0 | 1,997.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 687.0 | 972.0 | 1,293.0 |

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Average Number of Field Compressor Stations Developed Annually - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 0.0 | 0.0 | 0.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |

## Table P-22. General Overall Inputs for Natural Gas Production – Alternative C

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 215.0 | 215.0 | 215.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 49.0 | 49.0 | 49.0 |
| Average Number of Wells per Well Pad - Federal | 2.0 | 3.0 | 3.0 |
| Average Number of Wells per Well Pad - Non-Federal | 2.0 | 3.0 | 3.0 |
| Maximum Number of Wells Producing Annually - Federal | 1,544.0 | 2,886.0 | 4,390.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 688.0 | 976.0 | 1,302.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 7.0 | 7.0 | 7.0 |
| Average Number of Field Compressor Stations Developed Annually - Non- Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |

## Table P-23. General Overall Inputs for Natural Gas Production – Alternative D

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 207.0 | 207.0 | 207.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 49.0 | 49.0 | 49.0 |
| Average Number of Wells per Well Pad - Federal | 2.0 | 3.0 | 3.0 |
| Average Number of Wells per Well Pad - Non-Federal | 2.0 | 3.0 | 3.0 |

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Producing Annually - Federal | 1,538.0 | 2,828.0 | 4,273.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 688.0 | 976.0 | 1,302.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 7.0 | 7.0 | 7.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 74.0 | 198.0 | 198.0 |

**Table P-24. General Overall Inputs for Coalbed Natural Gas Production – Alternative A**

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 6.0 | 6.0 | 6.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 4.0 | 4.0 | 4.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 33.0 | 68.0 | 100.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 27.0 | 34.0 | 59.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non- Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 0.0 | 0.0 | 0.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 2.0 | 20.0 | 20.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 2.0 | 20.0 | 20.0 |

**Table P-25. General Overall Inputs for Coalbed Natural Gas Production – Alternative B**

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 3.0 | 3.0 | 3.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 4.0 | 4.0 | 4.0 |

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 30.0 | 42.0 | 49.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 27.0 | 33.0 | 58.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Field Compressor Stations Developed Annually - Non- Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non- Federal | 0.0 | 0.0 | 0.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 1.0 | 20.0 | 20.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 1.0 | 20.0 | 20.0 |

## Table P-26. General Overall Inputs for Coalbed Natural Gas Production – Alternative C

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 7.0 | 7.0 | 7.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 4.0 | 4.0 | 4.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 34.0 | 75.0 | 114.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 27.0 | 36.0 | 64.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non-Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 0.0 | 0.0 | 0.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 2.0 | 20.0 | 20.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 2.0 | 20.0 | 20.0 |

## Table P-27. General Overall Inputs for Coalbed Natural Gas Production – Alternative D

| -- | Short Year (Year 1) | Mid-Year (Year 10) | Long Year (Year 20) |
|---|---|---|---|
| Maximum Number of Wells Drilled Annually - Federal | 7.0 | 7.0 | 7.0 |
| Maximum Number of Wells Drilled Annually - Non-Federal | 4.0 | 4.0 | 4.0 |
| Average Number of Wells per Well Pad - Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Wells per Well Pad - Non-Federal | 1.0 | 1.0 | 1.0 |
| Maximum Number of Wells Producing Annually - Federal | 33.0 | 72.0 | 107.0 |
| Maximum Number of Wells Producing Annually - Non-Federal | 27.0 | 36.0 | 64.0 |
| Average Number of Field Compressor Stations Developed Annually - Federal | 2.0 | 2.0 | 2.0 |
| Average Number of Field Compressor Stations Developed Annually - Non- Federal | 1.0 | 1.0 | 1.0 |
| Average Number of Sales Compressor Stations Developed Annually - Federal | 0.0 | 0.0 | 0.0 |
| Average Number of Sales Compressor Stations Developed Annually - Non-Federal | 0.0 | 0.0 | 0.0 |
| Average Gas Production per Well per Day - Federal (MSCF/day) | 2.0 | 20.0 | 20.0 |
| Average Gas Production per Well per Day - Non-Federal (MSCF/day) | 1.0 | 20.0 | 20.0 |

## Table P-28. General Overall Inputs for Non-Oil and Gas Development within the Planning Area for All Alternatives, Year 1, Year 10 and Year 20

| Key Assumptions | Alternative A | Alternative B | Alternative C | Alternative D |
|---|---|---|---|---|
| **Sand and Gravel** | | | | |
| Total Annual Tons of Mined Material Processed | 5,111.0 | 4,000.0 | 6,500.0 | 5,111.0 |
| Percentage of Total Mined Material Processed at Facilities (%) | 25.0 | 20.0 | 30.0 | 25.0 |
| All Operations - Annual Development (acres) | 5.0 | 5.0 | 5.0 | 5.0 |
| All Operations - Reclamation (acres) | 2.0 | 2.0 | 2.0 | 2.0 |
| Annual Disturbed Area for Wind Erosion Calculations (acres) | 372.5 | 372.5 | 372.5 | 372.5 |
| **Coal Mining and Usage** | | | | |
| Total Annual Tons of Mined Material Processed | 8,800,000.0 | 8,800,000.0 | 8,800,000.0 | 8,800,000.0 |
| All Operations - Annual Development (acres) | 135.0 | 135.0 | 135.0 | 135.0 |
| All Operations - Reclamation (acres) | 150.0 | 150.0 | 150.0 | 150.0 |
| Annual Disturbed Area for Wind Erosion Calculations (acres) | 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 |

| Key Assumptions | Alternative A | Alternative B | Alternative C | Alternative D |
|---|---|---|---|---|
| **Trona Mining** | | | | |
| Total Annual Tons of Trona Produced per year (16% of the annual Mined Trona in the Known Sodium Leasing Area) | 2,641,105.0 | 2,641,105.0 | 2,641,105.0 | 2,641,105.0 |
| **Fire Management and Ecology** | | | | |
| Maximum Number of Mechanical Treatments per Year | 5.0 | 1.0 | 8.0 | 5.0 |
| Maximum Number of Prescribed Fires per Year | 4.0 | 0.0 | 6.0 | 4.0 |
| Maximum Number of Wildfires per Year | 60.0 | 0.0 | 100.0 | 60.0 |
| Maximum Number of Underground Coal Seam Fires per Year | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Annual Area for Mechanical Treatments (acres) | 150.0 | 30.0 | 3,000.0 | 150.0 |
| Total Annual Area for Prescribed Fire (acres) | 400.0 | 0.0 | 2,000.0 | 400.0 |
| Total Annual Area for Wildfire (acres) | 2,000.0 | 0.0 | 10,000.0 | 2,000.0 |
| Total Annual Area for Underground Coal Seam Fire (acres) | 170.0 | 0.0 | 350.0 | 170.0 |
| **Land Resources (ROW and RE)** | | | | |
| Number of Wind Energy Projects per Year | 1.0 | 2.0 | 1.0 | 1.0 |
| Average Number of Turbines per Wind Energy Project | 80.0 | 80.0 | 180.0 | 80.0 |
| Number of Non - (Oil and Gas or Uranium Mining) Pipelines Developed per Year | 5.0 | 5.0 | 15.0 | 5.0 |
| Number of Non - (Oil and Gas or Mining or Fire Management) Resource Roads Developed per Year | 10.0 | 5.0 | 20.0 | 10.0 |
| Number of Communication Sites Developed per Year | 3.0 | 2.0 | 5.0 | 3.0 |
| Number of Power Lines Developed per Year | 8.0 | 5.0 | 11.0 | 8.0 |
| Number of Telecommunication and Fiber Optics Lines Developed per Year | 5.0 | 2.0 | 10.0 | 5.0 |
| Average Overall Disturbed Area per Wind Energy Project (acres) | 5,200.0 | 2,200.0 | 5,200.0 | 5,200.0 |
| Average Overall Disturbed Area per Developed Non - (Oil and Gas or Uranium Mining) Pipeline (acres) | 10.0 | 10.0 | 20.0 | 10.0 |
| Average Disturbed Road Length per Developed Non - (Oil and Gas or Mining or Fire Management) Roads (miles) | 4.0 | 5.0 | 10.0 | 4.0 |
| Average Disturbed Area per Communication Site (acres) | 4.0 | 5.0 | 10.0 | 4.0 |
| Average Overall Disturbed Area per Developed Power Line (acres) | 40.0 | 30.0 | 60.0 | 40.0 |
| Average Disturbed Area per Developed Telecommunication and Fiber Optic Line (acres) | 25.0 | 10.0 | 40.0 | 25.0 |
| **Livestock Grazing** | | | | |
| Total Disturbed Acreage per Year - Springs | 1.0 | 0.0 | 4.0 | 1.0 |

| Key Assumptions | Alternative A | Alternative B | Alternative C | Alternative D |
|---|---|---|---|---|
| Total Disturbed Acreage per Year - Reservoirs / Pits | 4.0 | 2.0 | 8.0 | 4.0 |
| Total Disturbed Acreage per Year - Wells | 1.0 | 0.0 | 4.0 | 1.0 |
| Total Disturbed Acreage per Year - Pipelines | 1.0 | 0.0 | 4.0 | 1.0 |
| Total Disturbed Acreage per Year - Fences | 1.0 | 0.0 | 5.0 | 1.0 |
| Total Disturbed Acreage per Year - Reservoirs Maintenance | 4.0 | 2.0 | 8.0 | 4.0 |
| Total miles of Fence Line per Fences Project | 5.0 | 4.0 | 8.0 | 5.0 |
| Total Permitted Head of Cattle | 164,385.0 | 32,525.0 | 164,385.0 | 164,385.0 |
| Total Permitted Head of Horses | 454.0 | 454.0 | 454.0 | 454.0 |
| Total Permitted Head of Buffalo | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Permitted Head of Sheep | 135,853.0 | 135,853.0 | 135,853.0 | 135,853.0 |
| **Trails and Roads** | | | | |
| Average Miles of Maintained Road per Road Maintenance Project - Summer | 18.0 | 18.0 | 18.0 | 18.0 |
| Average Miles of Maintained Road per Road Maintenance Project - Winter | 0.0 | 0.0 | 0.0 | 0.0 |
| Average Number of Road Maintenance Projects per Period - Summer | 80.0 | 80.0 | 80.0 | 80.0 |
| Average Number of Road Maintenance Projects per Period - Winter | 0.0 | 0.0 | 0.0 | 0.0 |
| **Vegetation Management** | | | | |
| Total Acres per Year - Forest/Woodland Silviculture | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Acres per Year - Forest/Woodland Forest Products | 2.0 | 10.0 | 5.0 | 5.0 |
| Total Acres per Year - Forest/Woodland Weed Treatment | 500.0 | 2,000.0 | 1,500.0 | 1,500.0 |
| Total Acres per Year - Forest/Woodland Insect Control | 0.0 | 0.0 | 0.0 | 0.0 |

## Table P-29. Downstream Greenhouse Gas Calculation Assumptions for Alternative C (Least Restrictive)

| Coal Combustion | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **GHG** | **Coal Combusted (tons/yr)** | **Heat Content of Bridger Mine Coal* (MMBTU/ton)** | **Emission Factor **** | **Unit** | **Emissions (kg/yr)** | **Emissions (short tons/yr)** | **Emissions (metric tonnes/yr)** | **$CO_{2eq}$ Emissions (million metric tons)** |
| $CO_2$ | 8,800,000 | 18.4 | 97.17 | kg/MMBTU | 15,733,766,400 | 17,343,331 | 15,733,766 | 15.73 |
| $CH_4$ | 8,800,000 | 18.4 | 11 | gr/MMBTU | 1,781,120 | 1,963 | 1,781 | <1 |

| Coal Combustion | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $N_2O$ | 8,800,000 | 18.4 | 1.6 | gr/MMBTU | 259,072 | 286 | 259 | <1 |
| **Total** | | | | | | | | **15.85** |
| **Oil Combustion** | | | | | | | | |
| **GHG** | **Number of Producing Wells Long Term** | **Average Production Rate** | **Unit** | **HHV** | **Combustion Emission Factor (g/MMBTU)** | **Emissions (short tons/yr)** | **Emissions (metric tonnes/yr)** | **$CO_{2eq}$ Emissions (million metric tons)** |
| $CO_2$ | 488 | 44 | barrels/day | 5.8 | 74,000 | 3,707,873 | 3,363,412 | 3.36 |
| $CH_4$ | 488 | 44 | barrels/day | 5.8 | 10 | 501 | 455 | <1 |
| $N_2O$ | 488 | 44 | barrels/day | 5.8 | 0.6 | 30 | 27 | <1 |
| **Total** | | | | | | | | **3.38** |
| **Natural Gas Combustion** | | | | | | | | |
| **GHG** | **Number of Producing Wells Long Term** | **Average Production Rate** | **Unit** | **HHV*** ** | **Combustion Emission Factor (g/MMBTU)** | **Emissions (short tons/yr)** | **Emissions (metric tonnes/yr)** | **$CO_{2eq}$ Emissions (million metric tons)** |
| $CO_2$ | 4,390 | 198 | MSCF/day | 1.037 | 53,060 | 19,242,805 | 17,455,149 | 17.46 |
| $CH_4$ | 4,390 | 198 | MSCF/day | 1.037 | 1 | 363 | 329 | <1 |
| $N_2O$ | 4,390 | 198 | MSCF/day | 1.037 | 0.1 | 36 | 33 | <1 |
| **Total** | | | | | | | | **17.47** |

* from Environmental Assessment for Jim Bridger Coal Mine Complex Mining Plan Modification for Federal Coal Lease WYW-02727, OSMRE, Aug. 2017; MMBTU=one million British Thermal Units
** https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf
*** Assume HHV for natural gas = 1037 BTU/scf (1.037 MMBTU/Mscf) and oil = 5.8 MMBTU/barrel

## Table P-30. EPA's Facility Level Information on Greenhouse Gases Tool (FLIGHT) Reported Emissions for Sweetwater County Wyoming in 2016

| Facility Name | GHGRP* ID | Latitude | Longitude | City Name | County Name | State | Zip Code | Parent Companies | GHG Quantity (Metric Tons $CO_{2e}$) | Subparts |
|---|---|---|---|---|---|---|---|---|---|---|
| Echo Springs Compressor Station | 1,003,142 | 41.718603 | -107.787979 | Sweetwater County | Sweetwater | WY | 82,301 | Rockies express Holdings LLC (50%); P66REX LLC (25%); | 27,482 | C,W |

| Facility Name | GHGRP* ID | Latitude | Longitude | City Name | County Name | State | Zip Code | Parent Companies | GHG Quantity (Metric Tons $CO_{2e}$) | Subparts |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | TEP REX Holdings, LLC (25%) | | |
| Frewen Lake Compressor Station | 1,002,238 | 41.6709 | -108.035 | Sweetwater County | Sweetwater | WY | 82,336 | Williams Partners, LP (100%) | 0 | - |

Data Extracted from EPA's FLIGHT Tool (http://ghgdata.epa.gov/ghgp) The data was reported to EPA by facilities as of 08/05/2017
All emissions data is presented in units of metric tons of carbon dioxide equivalent using Global Warming Potentials from Intergovernmental Panel on Climate Change's AR4 Search Parameters: year=2016; state=WY; GHGs=ALL; data type=All Emitters
* Greenhouse Gas Reporting Program

# P.7 REFERENCES

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# APPENDIX Q—AIR QUALITY ADAPTIVE MANAGEMENT STRATEGY

## Q.1 PURPOSE

The Rock Springs Field Office Air Quality Adaptive Management Strategy (AQAMS) is intended to present the processes, procedures, and actions that support adaptive management principles for the protection of air resources and atmospheric values within the Rock Springs planning area. This AQAMS describes air resources management and outlines specific requirements for proponents of projects that have the potential to generate air emissions and impact air resources.

### Q.1.1 Nexus with the Resource Management Plan

The basis for development and inclusion of this AQAMS is supported by the specific goals and objectives outlined in Chapter 2 of the Rock Springs Resource Management Plan (RMP), specifically:

- **Management Goal PR 01:** Minimize the impact of management actions in the Planning Area on air quality by complying with all applicable air quality laws, rules, and regulations.
- **Management Goal PR 02:** Improve air quality in the Planning Area as practicable.
- **Management Objective PR 1-1:** Maintain concentrations of criteria pollutants in compliance with applicable state and federal Ambient Air Quality Standards within the scope of the Bureau of Land Management's (BLM) authority.
- **Management Objective 1-2:** Maintain concentrations of prevention of significant deterioration (PSD) pollutants associated with management actions in compliance with the applicable increment.
- **Management Objective 2.1:** Reduce visibility-impairing pollutants in accordance with the reasonable progress goals and time-frames established within the State of Wyoming's Regional Haze State Implementation Plan.
- **Management Objective 2.2:** Reduce atmospheric deposition pollutants to levels below generally accepted levels of concern and levels of acceptable change.

### Q.1.2 Characterization of Air Resources within the Rock Springs Planning Area

The air analysis included in the Rock Springs RMP identifies potential air resource impacts that could be affected by future BLM-authorized activities. An air emissions inventory was compiled for the planning area to determine the relative magnitude of air pollutant emissions associated with BLM actions and to compare emissions between alternatives. This emissions inventory is summarized in the Chapter 4, Air Quality section in the RMP/Environmental Impact Statement (EIS). Additional detail including methods and assumptions used in compiling the emissions inventory, are presented in the *Technical Support Document for Air Quality* (Appendix P). Emissions were calculated using assumptions about the likelihood of potential future activities occurring under each alternative. As a result, the compiled air emissions inventory represents a comparison of emissions of air pollutants based on best available information for future development projections. The emissions inventory is valuable for contrasting the impact of land use allocations on air resources among alternatives and useful for identifying activities that are likely to be major contributors of emissions. This AQAMS includes strategies that could be implemented by the BLM to address the following identified air quality issues:

- Air pollutant emissions – BLM-authorized activities within the planning area have the potential to emit criteria air pollutants, hazardous air pollutants (HAP), or greenhouse gases (GHG). Emissions of some pollutants may be emitted in quantities that could result in adverse impacts to air quality. Of the BLM authorized activities analyzed in the RMP, oil and gas development activities were shown to have the largest potential for increases in these pollutants.
- Ozone nonattainment – portions of the planning area are located within the Upper Green River Basin (UGRB) ozone (2008 standard) nonattainment area. BLM authorized activities, such as oil and gas and other mineral development, have the potential to emit ozone precursor emissions and may adversely impact ozone concentrations in the region. The BLM must comply with General Conformity requirements within the ozone nonattainment area.
- Visibility and atmospheric deposition – the planning area is surrounded by several Class 1 areas including Bridger, Fitzpatrick, and Mt. Zirkel Wilderness Areas. Emissions of nitrates, sulfates, and particulate matter from potential future oil and gas and other mineral development activities could cause decreases in scenic visual quality as well as changes to aquatic and soil chemistry, toxic effects in freshwater biota, and changes in plant community composition.

# Q.2 GENERAL CONDITIONS

## Q.2.1 BLM Responsibilities under the Federal Land Policy and Management Act, the Mineral Leasing Act, and the National Environmental Policy Act

Under the Federal Land Policy and Management Act (FLPMA), the BLM is required to manage public lands in a manner that will protect the quality of air and atmospheric values [FLPMA Sec. 102(a)(8)]. The FLPMA also provides that the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands and includes provisions for implementing the Mining and Minerals Policy Act of 1970 [FLPMA Sec. 102(a)(12)]. Further, the FLPMA provides that "In the development and revision of land use plans, the Secretary shall provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans;" [FLPMA Sec. 202(c)(8)]. In addition to its responsibilities under FLPMA, the BLM is required under the Mineral Leasing Act (MLA) to implement the decisions of an RMP in a manner that recognizes valid and existing mineral lease rights. In accordance with the National Environmental Policy Act of 1969 (NEPA), the BLM must take environmental factors into account when considering major federal actions. The BLM uses the NEPA process to analyze potential impacts of proposed actions on air resources and to consider appropriate measures to mitigate adverse impacts.

## Q.2.2 Adaptive Management for Air Resources

Adaptive management incorporates the principles of monitoring current conditions, predicting future impacts, and adapting management strategies to account for changing conditions. Components of this adaptive management strategy include 1) air monitoring; 2) emissions inventorying; 3) regional and project specific modeling; 4) annual analyses of air resources management data and strategies; 5) identification of mitigation measures; and 6) evaluation of the effectiveness of this AQAMS.

## Q.2.3 Review of Strategy Effectiveness

The BLM will periodically conduct a review of relevant air resources management data in order to implement and improve the adaptive management strategy. This review would be triggered by monitored exceedances of a measured National Ambient Air Quality Standards (NAAQS) at any air monitoring station within or adjacent to the planning area or at least every three years. The BLM will use the results of the

review to determine if this AQAMS is meeting the goals and objectives for air resources established in the Rock Springs RMP and if it should be updated or revised. The review may include one or more of the following tasks:

- Evaluation of current air monitoring data and trends from air monitoring sites located within and adjacent to the planning area to determine the status of current air quality conditions including measured concentrations approaching or exceeding any NAAQS or Wyoming Ambient Air Quality Standards (WAAQS) or including measured adverse impacts on air quality related values in Class I areas or sensitive Class II areas (as identified on a case-by-case basis by Wyoming Department of Environmental Quality [WDEQ] or a federal land management or tribal agency)
- Review of BLM authorized federal mineral development projects, or other potentially significant emission-generating projects authorized by the BLM within the planning area and comparison to the level of emissions analyzed in the Rock Springs RMP
- Evaluation of available reasonably foreseeable oil and gas development projections within the planning area for the upcoming three- to five-year period and comparison to the level of predicted future development analyzed in the Rock Springs RMP or other applicable regional or project-specific air impacts analysis
- Review of air quality modeling results from impact analyses conducted by the BLM, WDEQ, or other federal or tribal agencies within the previous 12 months that affect or are affected by BLM-authorized activities within the planning area.

### Q.2.4 Revision of the Air Quality Adaptive Management Strategy

The AQAMS is not a decision document, but rather an implementation strategy to address potential air quality concerns within the Rock Springs planning area. Therefore, the AQAMS may be modified as necessary to comply with changing laws, regulations, BLM policy, or to address new information and changing circumstances. Changes to the goals, objectives, or management actions set forth in the Rock Springs RMP would require maintenance or amendment of the Rock Springs RMP; however, changes to implementation, including modifying this AQAMS, may be made without maintaining or amending the RMP.

## Q.3 OZONE NONATTAINMENT AND GENERAL CONFORMITY

The UGRB was officially designated by the Environmental Protection Agency (EPA) as an ozone nonattainment area with a marginal classification in May 2012. The nonattainment area includes all of Sublette county and portions of Sweetwater and Lincoln counties. Section 176(c)(1) of the Clean Air Act (CAA) and the General Conformity regulations in 40 Code of Federal Regulations (CFR) 93 Subpart B and Chapter 8, Section 3 of the Wyoming Air Quality Standards and Regulations (WAQSR) require any entity of the federal government that authorizes, permits, licenses, conducts, or approves an activity that has the potential to emit the nonattainment pollutant (or precursors) to demonstrate that the action conforms to the applicable State Implementation Plan for achieving and maintaining the NAAQS and WAAQS before the action is otherwise approved.

The process to evaluate a proposed federal action within a nonattainment area involves the General Conformity applicability review and analysis, the General Conformity evaluation and determination process, and the General Conformity Determination. The applicability review process and analysis are required for any federal action (unless it is exempt) that would contribute pollutant emissions within the nonattainment area. A Conformity Determination is required for each nonattainment pollutant (and its precursors) where the total of direct and indirect net annual emissions in a nonattainment or maintenance area would equal or exceed the General Conformity de minimis thresholds. The de minimis thresholds are based on the severity of the nonattainment status. The UGRB was designated as marginal nonattainment

for ozone (2008 standard) by the EPA; thus, the applicable de minimis thresholds for the ozone precursors of nitrogen oxides (NOx) and volatile organic compounds (VOC) are 100 tons per year for any federal action.

The General Conformity regulations under WAQSR Chapter 8 Section 3(c) exempt specific actions from conformity determinations. Exempted activities include: actions where the total of direct and indirect emissions are below the de minimis levels; actions which would result in no emissions increase; routine maintenance, repair, and administrative activities; actions where the emissions are not reasonably foreseeable; the portion of an action that includes major or minor new or modified stationary sources that require a permit under the New Source Review program (WAQSR Chapter 6, Section 2).

# Q.4 INTERAGENCY AIR RESOURCES COLLABORATION

The CAA is the comprehensive federal law that provides for regulation of air emissions from stationary and mobile sources, the protection of public health and welfare through the NAAQS, and protection of visibility in designated Class I areas. The WDEQ has been delegated authority by EPA to implement the CAA within Wyoming. WDEQ has the primary responsibility for protecting air resources, regulating emissions sources, and maintaining air quality standards. The BLM has a responsibility to identify and address air quality issues attributable to our actions and within our authority while upholding our responsibility to manage public lands for multiple use. In addition, other federal, state, and tribal agencies also play an important role in air resource management. Interagency collaboration is key to comprehensive management of air quality, as no single agency has all the necessary tools to solve these complex issues alone. To that end, the BLM will work collaboratively with other agencies involved in the management of air resources to develop a comprehensive strategy to manage and protect air resources within the Rock Springs planning area from BLM authorized projects and activities.

## Q.4.1 Coordination with Wyoming Department of Environmental Quality

Since the late 1990s, the BLM has developed a cooperative working relationship with the WDEQ Air Quality Division (WDEQ-AQD) to address potential air quality and visibility impacts from its planning and authorizing actions through the NEPA process. The BLM and WDEQ staff have fostered a working relationship emphasizing coordination while respecting the State of Wyoming's regulatory authority. The BLM recognizes WDEQ's delegated authority under the CAA and primacy related to air quality issues. The WDEQ-AQD has developed air quality regulations and permitting requirements for the construction and operation of air pollution sources within both attainment and nonattainment areas. Regulations for permitting the construction, operation, and modification of air emissions sources are codified in WAQSR Chapter 6 Permitting Requirements. The WDEQ has also developed guidance on Best Available Control Technology (BACT) specific to the oil and gas industry that can be found in WDEQ's *Oil and Gas Production Facilities Chapter 6, Section 2 Permitting Guidance*, revised May 2016. Regulations pertaining to federal actions within a nonattainment area are codified in WAQSR Chapter 8 Nonattainment Area Regulations.

Before issuing any approval or Record of Decision (ROD) for federal mineral development projects or other proposed actions with the potential to generate significant emissions of regulated air pollutants within the planning area, the BLM will consult with WDEQ on strategies for analyzing and mitigating potential impacts to air quality from the proposed action. The BLM will keep WDEQ apprised of reasonably foreseeable development on public lands that may have the potential to impact air resources. Additionally, the BLM will collaborate with WDEQ on supporting regional air monitoring and modeling efforts.

### Q.4.2 Intermountain West Data Warehouse – Western Air Quality Study

The BLM Wyoming State Office has been an active participant in the Intermountain West Data Warehouse – Western air Quality Study (IWDW-WAQS); previously known as the Three-State Study, since 2010. The IWDW-WAQS provides high-quality tools for understanding and assessing the effects of current and future energy development and associated emissions on air quality in the Rocky Mountain west. The IWDW-WAQS is a cooperative venture between federal land management agencies, including the BLM, U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), and the National Park Service (NPS) as well as the EPA and state agencies from Wyoming, Colorado, Utah, and New Mexico. As part of this project, the BLM has provided significant funding for air monitoring, regional photochemical grid modeling, and oil and gas basin emissions inventories. As part of its adaptive management response to regional air quality issues within and surrounding the planning area, the BLM is committed to continued participation in the IWDW-WAQS and will continue to provide support for regional analyses, monitoring, and emission inventory development as funding allows. Additional information on the IWDW-WAQS project can be found at the IWDW website: http://views.cira.colostate.edu/TSDW/.

## Q.5 AIR RESOURCE MANAGEMENT

### Q.5.1 Air Analysis for Authorized Emissions Generating Activities

As part of the NEPA process and prior to authorization of any proposed federal mineral development activity or other proposed project with the potential to generate emissions of regulated air pollutants above levels of concern as identified during project scoping, the BLM will conduct an air analysis to determine the magnitude of potential impacts on air quality based on the estimated emissions from the activity being authorized.

The BLM will consider the following analysis criteria to identify pollutants of concern and inform decisions regarding the appropriate level of air analysis to be conducted for oil and gas development activities and may consider these criteria for other activities with the potential to generate emissions of regulated air pollutants:

- magnitude of potential air emissions from the proposed activity
- duration of proposed activity
- proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by WDEQ or a federal land management or tribal agency), population center, or other sensitive receptor
- location within or adjacent to a non-attainment or maintenance area
- meteorological and geographic conditions
- existing air quality conditions including measured exceedances of NAAQS or WAAQS and measured adverse impacts on air quality related values from BLM authorized projects and activities
- intensity of existing and projected development in the area
- issues identified during project scoping.

### Q.5.2 Emissions Inventory

The BLM may require the proponent of a federal mineral development activity (as proposed in a permit application, plan of development, or other application) to submit an emissions inventory of direct and

indirect emissions associated with the proposed project when determined necessary to complete an analysis in accordance with NEPA. The BLM may request submittal of an emissions inventory for other proposed activities that have the potential to generate emissions of regulated air pollutants based on the analysis criteria included in Q.5.1. When required, any submitted emissions inventory must include estimated emissions of regulated air pollutants from all sources related to the proposed activity, including fugitive emissions, HAPs, and GHG emissions, for each year or distinct phase over the life of the project. The BLM will review the emissions inventory to determine its completeness and accuracy. In many cases, the BLM will accept inventory data reported to other state or federal regulatory agencies. Emission control measures, in addition to regulatory requirements, included in the emissions inventory assumptions and relied upon to determine project impacts, will become Operator Committed Measures if/when the BLM authorizes an activity.

## Q.5.3 Emissions Reduction Strategies

The BLM may request the proponent of a federal mineral development project that has the potential to emit any regulated air pollutants at levels which may cause or contribute to a violation of a Federal or State air quality standard to provide emissions reduction strategies to reduce project related air pollutant emissions including GHGs, HAPs, and fugitive dust. The BLM may request submittal of emissions reduction strategies for other proposed activities that have the potential to generate emissions of regulated air pollutants based on the analysis criteria included in Q.5.1. Project proponents for oil and gas development projects should refer to Table Q-1. Best Management Practices for Oil and Gas Development as a reference for potential emission reduction technologies and strategies. The list is not intended to preclude the use of other effective air pollution control technologies that may be proposed. Details of operator committed measures submitted by the applicant will be included in and enforced as a condition of approval in the BLM-issued authorization.

## Q.5.4 Air Monitoring

The BLM recognizes that ambient air monitoring provides valuable data for determining current and background concentrations of air pollutants, describing long term trends in air pollutant concentrations, and evaluating the effectiveness of air control strategies. The BLM will cooperate with WDEQ to support a comprehensive air monitoring network within the planning area and areas potentially affected by BLM authorized activities within the planning area. The air monitoring network will include the WDEQ Rock Springs SLAMS monitoring station in the city of Rock Springs. The BLM will continue to support its Wyoming Air Resource Monitoring System (WARMS) air monitoring network, contingent upon available funding. Additional information on this network can be found at https://www.blmwarms.net/index.html. The BLM will also work collaboratively with the USFS, NPS, USFWS, or other entities to support the collection of air quality data in an effort to better understand the impacts of atmospheric deposition and visibility impairment within the planning area. This collaboration may be facilitated through interagency partnerships including the Greater Yellowstone Coordinating Committee, Western Regional Air Partnership, and National Atmospheric Deposition Program.

## Q.5.5 Project Specific Air Monitoring

The BLM may require as part of the air analysis (Section Q.5.1) that project proponents provide new and/or existing air monitoring data from a site within, adjacent to, or representative of the proposed development area. The purpose of this air monitoring is to establish baseline air quality conditions prior to development at the site. The requirement for providing air monitoring data will be based on the analysis criteria listed in Section Q.5.1 and the availability or absence of existing representative air monitoring data.

The project proponent will be responsible for funding, siting, installing, operating, and maintaining any air monitoring equipment if monitoring is required in the absence of existing representative air monitoring

data. Project-specific monitoring data may be used by the BLM in subsequent NEPA analyses required for project approvals. Air monitoring data used to inform an authorization decision will be disclosed through the NEPA process. Additionally, the BLM will ensure that ambient air monitoring data collected as a Condition of Approval for any BLM authorized activity will be made publicly available.

## Q.5.6 Modeling

Air dispersion and photochemical grid models are useful tools for predicting project-specific impacts on air quality, predicting the potential effectiveness of control measures and strategies, and forecasting trends in regional concentrations of air pollutants. The BLM will use regional air modeling and project-specific modeling, in conjunction with other air analysis tools, to develop air resource protection strategies consistent with its responsibilities under FLPMA. Further, the BLM will use modeling of projected air emissions to evaluate the direct, indirect, and cumulative impacts of proposed actions as part of an analysis in accordance with NEPA. The BLM will support and participate in regional modeling efforts through multi-state and/or multi-agency organizations, such as the IWDW and the Western Regional Air Partnership. In addition, the BLM will conduct or facilitate regional air modeling as outlined in Section Q.4.2 or other regional study, contingent upon available funding.

## Q.5.7 Project-Specific Modeling

The BLM may require project-specific air quality modeling to analyze potential impacts from a proposed federal mineral development project or other proposed activity that has the potential to emit regulated air pollutants in order to evaluate the effectiveness of any air emission control measures. The BLM will determine the parameters required for a project-specific modeling analysis through the development of a modeling protocol for each analysis. Project proponents may submit results from other modeling analyses that include the proposed action or activities similar to the proposed project for the BLM's review and approval. The decision to require air quality modeling will be based on the analysis criteria listed in Section Q.5.1. The BLM may not require an air modeling analysis when it can be demonstrated that the project will not cause a substantial increase in emissions of the pollutants of concern.

## Q.5.8 Air Resources Mitigation Measures

Many activities the BLM authorizes, permits, or allows, may generate air pollutant emissions that have the potential to adversely impact air quality. The primary mechanism to reduce air quality impacts is to reduce emissions via project design features and mitigation. Appropriate emission reduction measures are best identified and required at the project authorization stage, when the temporal and spatial characteristics and technological specifications of the proposed action have been defined. The project-specific information available at that stage allows for the development of an emissions inventory and impact analysis that can be used to identify effective mitigation options for predicted adverse impacts.

The BLM will ensure implementation of reasonable air emissions control measures, design features, operator committed measures, or mitigation within its regulatory authority if an air quality impact analysis shows that future impacts are predicted to exceed a NAAQS or WAAQS or levels of concern for air quality related values in a Class I area, or if a BLM authorized source caused or contributed to a monitored exceedance of a NAAQS or WAAQS as determined by WDEQ in consultation with the BLM. Control measures would be implemented through appropriate mechanisms as provided for by law and consistent with lease rights and obligations. In the absence of, or in addition to effective control technologies, the BLM may manage the pace, place, density, and intensity of development to meet air quality standards. Project proponents for oil and gas development projects should refer to Table Q-1. Best Management Practices for Oil and Gas Development, as a reference for potential emission reduction technologies and strategies. The list is not intended to preclude the use of other effective air pollution control technologies that may be proposed.

## Q.5.9 Lease Notice for Oil and Gas Development within the Upper Green River Basin Ozone Nonattainment Area

The BLM will attach the following lease notice to all offered lease parcels located within the Rock Springs planning area that lie within the UGRB Ozone (2008 standard) nonattainment area.

> ***Lease Notice:*** *Prior to project-specific approval, additional air resource analyses will be required in order to comply with General Conformity requirements under the Clean Air Act. The lessee/operator will be required to provide a complete emissions inventory, and may be required to provide air monitoring data, and/or modeling results for an analysis of impacts to air quality or air quality related ozone levels. Interagency consultation may be initiated with affected land managers and air quality regulators to determine potential mitigation options for any predicted impacts from the proposed development. The analysis and consultation may result in the imposition of additional project-specific best management practices to minimize emissions of ozone-precursors if the proposed operation would not comply with the General Conformity regulations.*

**Table Q-1. Best Management Practices for Oil and Gas Development**

| Recommended Emission Reduction Measure | Potential Environmental Benefits | Potential Environmental Liabilities |
|---|---|---|
| **Control Strategies for Drilling and Compression** | | |
| Multi-well pad directional or horizontal drilling. | When compared to single pad vertical drilling, reduces construction related emissions, decreases surface disturbance, reduces trip frequencies, and reduces habitat fragmentation. | Could result in higher air impacts in one area with longer sustained drilling times. Depends on geological strata, topography, and other physical constraints. |
| Improved engine technology (Tier 4) for diesel drill rig engines. | Reduced NOx, PM, CO, and VOC emissions. | Dependent on availability of technology from engine manufacturers and, potentially differentials in cost for small operators. |
| Selective Catalytic Reduction (SCR) for drill rig engines and/or compressors. | NOx emissions reduction, potential decreased formation of visibility impairing compounds and ozone. NOx control efficiency of 95% achieved on drill rig engines. NOx emission rate of 0.1 g/hp-hr achieved for compressors. | Potential NH3 emissions and formation of visibility impairing ammonium nitrate.<br>Regeneration/disposal of catalyst can produce hazardous waste. |
| Non-selective catalytic reduction (NSCR) for drill rig engines and/or compressors. | NOx emissions reduction, potential decreased formation of visibility impairing compounds, and ozone. NOx control efficiency of 80-90% achieved for drill rig engines. NOx emission rate of 0.7 g/hp-hr achieved for compressor engines greater than 100 hp. | Regeneration/disposal of catalysts can produce hazardous waste. Not applicable to lean burn or 2-stroke engines. |
| Natural Gas fired drill rig engines. | NOx emissions reduction, potential decreased formation of visibility impairing compounds, and ozone. | May require construction of infrastructure (pipelines and/or gas treatment equipment). May require onsite gas storage. May require additional engines to supplement needed torque. |
| Electrification of drill rig engines and/or compressors. | Decreased emissions at the source. Transfers emissions to more efficiently controlled source (EGU). | Displaces emissions to EGU. May require construction of power lines. |

| Recommended Emission Reduction Measure | Potential Environmental Benefits | Potential Environmental Liabilities |
|---|---|---|
| Improved engine technology (Tier 2, 3 or 4) for all mobile and non-road diesel engines. | Reduced $NO_X$, PM, CO, and VOC emissions. | Dependent on availability of technology from engine manufacturers. |
| Reduced emission (a.k.a. "green") completions. | Reduction in VOC and $CH_4$ emissions. Reduces or eliminates flaring and venting and associated emissions. Reduces or eliminates flowing back into open pits and associated evaporative emissions. Increased recovery of gas to pipeline rather than atmosphere. | May result in temporary increase in truck traffic and associated emissions due to delivery of onsite equipment or due to construction of infrastructure. |
| Flaring of completion emissions. | Reduces methane, VOC, and some HAP emissions. Converts $CH_4$ to $CO_2$. | Some emissions from combustion of flaring gas. |
| Minimize/eliminate venting and/or use closed loop process where possible during "blow downs." | Reduces methane, VOC, and some HAP emissions. | Depends on frequency and pressure. May require onsite equipment. |
| Eliminate evaporation pits for drilling fluids. | Reduces VOC and GHG emissions. Reduces potential for soil and water contamination. Reduces odors and potentially surface disturbance. | May increase truck traffic and associated emissions. Requires tank and/or pipeline infrastructure. |
| Electrification of wellhead compression/ pumping. | Reduces local emissions of fossil fuel combustion and transfers to more easily controlled source. | Displaces emissions to EGU. Depends on availability of power lines. |
| Wind (or other renewable) generated power for compressors. | Low or no emissions. | May require construction of infrastructure. Visual impacts. Potential wildlife impacts. |
| Compressor seals – replace wet with dry or use mechanical seal. | Reduce gas venting (VOC and GHG emissions). | May not be mechanically feasible. May be costly. |
| Compressor rod packing system – use monitoring and replacement system. | Reduce gas leaks (VOC and GHG emissions). | Requires establishing a monitoring system and doing replacements. |
| **Control Strategies Utilizing Centralized Systems** | | |
| Centralization (or consolidation) of gas processing facilities (e.g., separation, dehydration, sweetening). | Reduces vehicle miles traveled (truck traffic) and associated emissions. Reduced VOC and GHG emissions from individual dehydration/ separator units. | Temporary increase in construction associated emissions. Higher potential for pipe leaks. |
| Liquids Gathering systems (for condensate, gas, and produced water). | Reduces vehicle miles traveled and associated emissions. Reduced VOC and GHG emissions from tanks, truck loading/unloading, and multiple production facilities. | Temporary increase in construction associated emissions. Higher potential for pipe leaks. Requires pipeline infrastructure. |
| Water and/or fracturing liquids delivery system. | Reduced long term truck traffic and associated emissions. | Temporary increase in construction associated emissions. Higher potential for pipe leaks. Requires pipeline infrastructure. |
| **Control Strategies for Tanks, Separators, and Dehydrators** | | |
| Eliminate use of open top tanks. | Reduced VOC and GHG emissions. | -- |
| Capture and control of flashing emissions from all storage tanks and separation vessels with vapor recovery and/or thermal combustion units. | Reduces VOC and GHG emissions. | Pressure buildup on older tanks can lead to tank rupture and release. |

| Recommended Emission Reduction Measure | Potential Environmental Benefits | Potential Environmental Liabilities |
|---|---|---|
| Capture and control of produced water, crude oil, and condensate tank emissions. | Reduces VOC and GHG emissions. | -- |
| Capture and control of dehydration equipment emissions with condensers, vapor recovery, and/or thermal combustion. | Reduces VOC, HAP, and GHG emissions. | May create emissions from combustion of gas used for heating. |
| Use zero emissions dehydrators or use desiccants dehydrators. | Reduces VOC, HAP, and GHG emissions. Can be as effective as Triethylene Glycol dehydration. | Requires desiccants (salt tablets). Process results in the formation of a brine solution that must be disposed of. |
| **Control Strategies for Miscellaneous Fugitive VOC Emissions** | | |
| Install plunger lift systems to reduce well blow downs. | Reduces VOC and GHG emissions. Can be more efficient at fluids removal than other methods. | Must have adequate pressure. |
| Install and maintain low VOC emitting seals, valves, hatches on production equipment. | Reduces VOC and GHG emissions. | -- |
| Initiate equipment leak detection and repair program (e.g., including use of forward-looking infrared cameras, grab samples, organic vapor detection devices, and/or visual inspection). | Reduction in VOC and GHG emissions. | -- |
| Install or convert gas operated pneumatic devices to electric, solar, or instrument (or compressed) air driven devices/controllers. | Reduces VOC and GHG emissions. | Electric or compressed air driven operations can displace or increase combustion emissions. |
| Use "low" or "no bleed" gas operated pneumatic devices/controllers. | Reduces VOC and GHG emissions. | -- |
| Use closed loop system or thermal combustion for gas operated pneumatic pump emissions. | Reduces VOC and GHG emissions. | -- |
| Install or convert gas operated pneumatic pumps to electric, solar, or instrument (or compressed) air driven pumps. | Reduces VOC and GHG emissions. | Electric or compressed air driven operations can displace or increase combustion emissions. |
| Install vapor recovery on truck loading/unloading operations at tanks. | Reduces emissions of VOC and GHG emissions. | Pressure build up on older tanks can lead to uncontrolled rupture. |
| **Control Strategies for Fugitive Dust and Vehicle Emissions** | | |
| Unpaved surface treatments including watering, chemical suppressants, and gravel. | 20% - 80% control of fugitive dust (particulates) from vehicle traffic. | Potential impacts to water and vegetation from runoff of suppressants. |
| Use remote telemetry and automation of wellhead equipment. | Reduces vehicle traffic and associated emissions. | Not possible in some terrain or conditions. |
| Speed limit restrictions on unpaved roads. | Reduction of fugitive dust emissions. | -- |

| Recommended Emission Reduction Measure | Potential Environmental Benefits | Potential Environmental Liabilities |
|---|---|---|
| Reduce commuter vehicle trips through car pools, commuter vans or buses, innovative work schedules, or work camps. | Reduced combustion emissions, reduced fugitive dust emissions, reduced ozone formation, reduced impacts to visibility. | -- |
| **Miscellaneous Control Strategies** | | |
| Use of ultra-low sulfur diesel (e.g., in engines, compressors, construction equipment). | Reduces emissions of particulates and sulfates. | Dependent up on availability of ultra-low sulfur diesel. |
| Reduce unnecessary vehicle idling. | Reduced combustion emissions, reduced ozone formation, reduced impacts to visibility, reduced fuel consumption. | -- |
| Reduced pace or phased development. | Peak emissions of all pollutants reduced. | Emissions generated at a lower rate but for a longer period. Life of project, duration of impacts is longer but of a lesser intensity. |

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# APPENDIX R—APPROPRIATE MANAGEMENT LEVELS FOR HERD MANAGEMENT AREAS

As part of the process to revise the Rock Springs Resource Management Plan (RMP), the Bureau of Land Management (BLM) Rock Springs Field Office (RSFO) is evaluating the Appropriate Management Level (AML) for the Little Colorado Herd Management Area (HMA). The purpose of this appendix is to demonstrate the analysis of AML for the HMA in the planning area.

AML establishes the number of wild horses to be managed within an HMA. AML is expressed as a population range with an upper and lower limit. The AML upper limit is the number of wild horses which results in a Thriving Natural Ecological Balance (TNEB) and avoids a deterioration of the range. The AML lower limit is normally set at a number that allows the population to grow to the upper limit over a 4- to 5-year period, without any interim gathers to remove excess wild horses.

An evaluation of the AML for the White Mountain HMA in provided in Appendix A of the Proposed Resource Management Plan Amendment and Final Environmental Impact Statement for Wild Horse Management for the BLM Rock Springs and Rawlins Field Offices (https://eplanning.blm.gov/eplanning-ui/project/2009946/510).

## R.1 LITTLE COLORADO

**Table R-1. Wild Horse Management in the Little Colorado HMA**

| -- | Existing Management Alternative A |
|---|---|
| **AML** | 69-100 |
| **Acres within the HMA** | 630,759 |
| **Acres per wild horse at High AML** | 6,307 |
| **Annual AUMs needed to Support Wild Horses at High AML** | 1,200 |

The *Wild Horses and Burros Management Handbook* (H-4700-1) provides an outline of a three-tiered analysis for establishing and adjusting the AML:

- The Tier 1 analysis determines whether the four essential habitat components (forage, water, cover, and space) are present in sufficient amounts to sustain healthy wild horse populations and healthy rangelands over the long-term.
- The Tier 2 analysis determines the amount of sustainable forage available for wild horse use.
- The Tier 3 analysis determines whether or not the projected wild horse herd size is sufficient to maintain genetically diverse wild horse populations (i.e., avoid inbreeding depression).

This document follows this three-tiered analysis approach for assessing AML for the Little Colorado HMA.

## R.1.1 Tier 1 Analysis: Sufficient Forage, Water, Cover and Space

**Table R-2. Summary of the Adequacy of Wild Horse Habitat within the Little Colorado Herd Management Area**

| HMA Name | Forage | | Water | | Cover | | Space | |
|---|---|---|---|---|---|---|---|---|
| | Sufficient | Insufficient | Sufficient | Insufficient | Sufficient | Insufficient | Sufficient | Insufficient |
| Little Colorado | X | -- | X | -- | X | -- | X | -- |

The Little Colorado HMA was established in August 1997, with the approval of the Green River RMP. The AML for the Little Colorado HMA is currently set at a range of 69 to 100 wild horses. This HMA contains approximately 630,759 acres. The Little Colorado HMA consists mostly of BLM and Bureau of Reclamation lands managed by the RSFO. Elevation ranges from 6,250 feet along the Big Sandy River to over 7,489 feet in the Figure Four Canyon area. Summers are hot, and winters can range from mild to bitterly cold. Annual precipitation ranges from less than seven to more than 12 inches per year. About half of the precipitation falls during the growing season from April through June, with the remainder coming in high intensity summer thunderstorms and winter snowfall. Much of the precipitation from summer thunderstorms runs off in numerous drainages. Some of this water is captured in reservoirs or pits. Flowing wells, springs, and creeks are the primary sources of water for wild horses, livestock, and wildlife. The Little Colorado HMA contains approximately 89 wells/reservoirs and approximately 26 miles of stream, providing plenty of water sources for wild horses to utilize distributed throughout the HMA.

The vegetation communities in the Little Colorado HMA are very diverse in this large area, reflecting the diversity in soils, topography, and geology found there. The high-elevation, cold-desert vegetation of the project area is composed predominantly of Wyoming big sagebrush/grass and Gardner saltbush vegetation communities. Other plant communities present include desert shrub, grassland, mountain shrub, juniper woodlands, and a very few aspen woodlands. Needle-and-thread, Indian ricegrass, bluebunch wheatgrass, western wheatgrass, junegrass, basin wildrye, sandhill muhly, Canby and little bluegrass, and threadleaf sedge are the predominant grasses and grass-like species. Wyoming big sagebrush, black sagebrush, bud sage, birdsfoot sage, Gardner's saltbush, spiny hopsage, four-wing saltbush, greasewood, bitterbrush, winterfat, horsebrush, Douglas and rubber rabbitbrush, and true mountain mahogany are important shrub species. Forbs are common and variable depending on the ecological site and precipitation zone.

Wild horses generally prefer perennial grass species as forage when available. Shrubs are more important during the fall and winter, and in drought years. The species of grasses preferred depends on the season of the year. Needle-and-thread and Indian ricegrass are most important during the winter and spring and wheatgrasses during the summer and fall.

Overall, the habitat within the Little Colorado HMA provides adequate forage, water, cover, and space to sustain a viable and healthy wild horse population, while maintaining TNEB.

## R.1.2 Tier 2 Analysis: Sustainable Forage

**Table R-3. Summary of Wild Horse Populations, Utilization and Precipitation from 2008 – 2015**

| Year | Wild Horse Population | Wild Horse Animal Unit Months Utilized | Average % Utilization Monitored | Annual Precipitation (inches) (30-Year Average = 6.45 in) Big Piney |
|---|---|---|---|---|
| 2008 | 69 | 828 | 20% | 5.77 |
| 2009 | 83 | 996 | 18% | 9.0 |
| 2010 | 152 | 1,824 | 25% | 4.78 |
| 2011 | 256 | 3,072 | 20% | 3.67 |
| 2012 | 70 | 840 | 19% | 2.53 |
| 2013 | 88 | 1,056 | 22% | 4.64 |
| 2014 | 104 | 1,248 | 2% | 4.79 |
| 2015 | 259 | 3,108 | 21% | 6.87 |
| Average | 135 | 1,621 | 18% | 5.2 |

The data in Table R-3 provides historical information on wild horses, climate and forage utilization under Existing Management. Data is provided from 2008-2015 as this was the period when utilization monitoring data was available for this area.

Overall, the eight-year evaluation period occurred during a drought. The 30-year average annual precipitation for this area is 6.45 inches. During the eight-year period shown in Table R-3, average precipitation was 5.2 inches, with only two years being above average and six years below average.

Within these climatic conditions, and with an average wild horse population of 135, average utilization levels were at 18% for the assessment period. Utilization standards for this area seek to ensure utilization levels are below 50% in the uplands. It is important to note that utilization levels take into account all potential sources of defoliation such as livestock, wildlife, wild horses, etc.

**Table R-4. Summary of Land Health Standards for Allotments within the Little Colorado Herd Management Area**

| Allotment | Year of Land Health Assessment | Standard 1 Soils | Standard 2 Riparian | Standard 3 Upland Vegetation | Standard 4 Plant and Animal Habitat | Standard 5 Water Quality | Standard 6 Air Quality |
|---|---|---|---|---|---|---|---|
| Big Sandy | 2013 | -- | -- | -- | -- | -- | -- |
| Lombard | 2013 | -- | X | -- | -- | -- | -- |
| Eighteen Mile | 2013 | -- | X | -- | -- | -- | -- |
| Figure Four | 2002 | -- | -- | -- | -- | -- | -- |
| Sublette | 2002 | -- | -- | -- | -- | -- | -- |
| Boundary | 2002 | -- | -- | -- | -- | -- | -- |

"--" indicates the land health standard is being met.
X – Indicates that the land health standard is not being met.

Table R-4 summarizes the results of the most recent land health standards for allotments within the Little Colorado HMA. As shown, the primary concern with land health conditions within the HMA are riparian areas. While wild horses can utilize riparian areas, they have not been identified as a primary causal factor to these riparian areas not meeting land health standards. The main reason that Standard #2 is not being met is due to the dam on the Big Sandy River. The water levels on the Big Sandy River are maintained and the water levels do not fluctuate as needed for woody vegetation to be established and maintained.

At high AML (100 wild horses) in the Little Colorado HMA, there would be approximately 6,307 acres per wild horse and these wild horses would utilize 1,200 AUMs per year. Historic utilization levels show that even when wild horse populations were significantly over their high AML, utilization levels were still substantially below the 50% use objective.

## R.1.3 Tier 3 Analysis: Genetic Diversity

Current genetic diversity is generally good within the Little Colorado HMA, but needs to be monitored closely.

RECOMMENDATIONS: Current variability levels are high enough that no action is needed at this point but the herd should be monitored closely due to the high proportion of rare alleles. This is especially true if it is known that the herd size has seen a recent decline.

The *Wild Horses and Burros Management Handbook* (H-4700-1) states, "To avoid inbreeding depression in wild horse populations, a minimum herd size of 50 effective breeding animals (a total population size of about 150-200 animals) is recommended."

High AML for the Little Colorado HMA is below this recommended level; however, wild horses in this HMA have maintained healthy genetics over the past few decades at this AML. Therefore, it is expected that a high AML of 100 wild horses will continue to maintain adequate genetic diversity.

# APPENDIX S—RECREATION REPORT

## S.1 RECREATION MANAGEMENT

Over the years, definitions of recreation have differed in their particular emphasis but have shared a common core; recreation is a behavior that individuals choose to engage in for the purpose of realizing experiences and personal benefits, such as renewal or refreshment. The individual attains experiences and benefits by participating in preferred recreation activities in preferred recreation settings.

Public lands can provide visitors a wide array of satisfying recreation experiences. The goal of the public land manager is to provide opportunities for visitors to obtain desired experiences and beneficial outcomes while protecting resources. The manager accomplishes this goal by planning for and managing the physical, social, and operational settings and the activities that occur within them.

Recreation resources and uses are allocated through the land use planning process. During land use planning, an interdisciplinary team considers various management scenarios for all resources that are present within a geographic area to achieve management goals and objectives. Some form of recreation use and associated recreation resources are typically present on the lands and waters managed by Bureau of Land Management (BLM) field offices and are consequently allocated through the land use planning process.

In the last several decades, there has been a growing recognition of how much recreation contributes to the quality of life, economy, society, and environment. Changing public values and expectations of land management agencies to meet the demand for diverse recreation uses has created the need for changes in managing recreation and visitor services.

These changes and resulting advances in recreation management knowledge and practices have been responsible for the evolution from activity-based management to experience-based management and, recently, benefits-based management. Each transition built on the management framework of the previous. Within the BLM, benefits-based management has further transitioned to outcomes-focused management.

### S.1.1 Outcome Focused Management

Outcomes-focused management is defined as an approach to recreation management that focuses on the positive outcomes gained from engaging in recreational experiences.

### S.1.2 Recreation Management Area Designation

To help effectively manage recreation and visitor services, the BLM designates recreation management areas (RMA), and the areas are classified as either a special recreation management area (SRMA) or an extensive recreation management area (ERMA). Both types of areas are recognized as producing high-quality recreation opportunities and offering beneficial outcomes for recreation participants, recreation-tourism partners, visitor service providers, and communities. Recreation and visitor service objectives in RMAs are recognized as a primary resource management consideration, and specific management is required to protect the recreation opportunities. The RMA designation is based on recreation demands and issues, recreation setting characteristics, resolving use/user conflicts, compatibility with other resource uses, and resource protection needs. There is no requirement to designate all lands as RMAs.

## Special Recreation Management Areas

A SRMA is an administrative unit where existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness, especially as compared to other areas used for recreation.

### Management Focus

A SRMA is managed to protect and enhance a targeted set of activities, experiences, benefits, and desired recreation setting characteristics. The land use plan may subdivide an SRMA into recreation management zones (RMZ) to further delineate specific recreation opportunities. Within an SRMA, recreation and visitor services management is recognized as the predominant land use plan focus, where specific recreation opportunities and recreation setting characteristics are managed and protected on a long-term basis.

## Extensive Recreation Management Areas

An ERMA is an administrative unit that requires specific management consideration in order to address recreation use, demand, or recreation and visitor services program investments.

### Management Focus

An ERMA is managed to support and sustain principal recreation activities and associated qualities and conditions. Management of ERMAs is commensurate with the management of other resources and resource uses. While generally unnecessary, ERMAs may be subdivided into RMZs to ensure recreation and visitor services are managed commensurate with other resources and resource uses.

The existing Green River Resource Management Plan (RMP) and the Jack Morrow Hills Coordinated Activity Plan identified six special recreation management areas. They are the following:

- Wind River Front
- Green River
- Killpecker Sand Dunes Open Play Area
- Continental Divide National Scenic Trail
- Continental Divide Snow Machine Trail
- Oregon and Mormon Pioneer National Historic Trail.

Additional public scoping identified two additional areas where recreation management for beneficial outcomes may be considered. They are the following:

- Red Creek Badlands
- Little Mountain.

These SRMAs accommodate national visitor demand for destination-oriented recreational opportunities in the Rock Springs Field Office (RSFO). This demand has been identified by onsite customers and community involvement. These areas contain a high diversity of vegetation, wildlife, scenic, historic, and cultural resources providing additional opportunities for outdoor recreation. SRMA management will sustain and enhance these resources as well as accommodate visitor demand. Special Recreation Permits will be allowed in these areas so long as the resource conditions and outcome objectives can be maintained.

# S.2 RECREATION MANAGEMENT AREA PRESCRIPTIONS

## S.2.1 Wind River Front

Supporting information: The west slope of the Wind River Mountains attracts visitors from the surrounding communities and from outside the region due to the spectacular scenery, abundant wildlife, and exposed geologic formations. Nearby attractions which also draw visitors to the area include the Big Sandy Recreation Area and the Prospect Mountains. Also, some visitors traveling to or from Yellowstone National Park spend time in the area. The SRMA includes the Sweetwater Guard Station, Sweetwater Bridge, Dutch Joe, and Blucher Creek campgrounds, which are BLM managed campgrounds referred to as the Sweetwater Campgrounds. The SRMA also includes the Sweetwater River, which meets national requirements for designation as a Wild and Scenic River. The area also includes the Lander Cutoff of the Oregon Trail. The west slope of the Wind River Mountains provides important wildlife habitat and access into the Bridger Teton National Forest. These resources provide for excellent semi-primitive, and non- motorized recreation as well as motorized (touring) recreation.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes developed campgrounds and dispersed recreation and camping areas. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as Visual Resource Management Class II. All motorized use would be limited to designated roads and trails. The area is a right-of-way (ROW) avoidance area.

Information and Education – Signage and other visitor controls are installed in this area and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

### Recreation Setting Characteristics:

#### Physical Setting

Level of:

Remoteness – Within 0.5 mile of four-wheel drive two track routes.

Naturalness – Character of the natural landscape retained. A few of the modifications contrast with the character of the landscape.

Facilities – Maintained and marked trails, simple trailhead developments, basic developed fire pits and toilets.

#### Social Setting

Level of:

Contacts – Usually 3-6 encounters/day off travel routes and campsites, and 7-15 encounters/day on travel routes.

Group Size – 4-6 people per group.

Evidence of Use – Areas of alteration uncommon. Little surface vegetation wear observed, sounds of people infrequent.

#### Administrative Setting

Level of:

Mechanized Use – Middle Country: Four-wheel drive vehicles, all-terrain vehicles (ATV), dirt bikes, or snowmobiles in addition to non-motorized mechanized use. Back Country: Mountain bikes and other mechanized use, but all is non-motorized.

Visitor Services – Signs present at key access points, but limited. Interpretive signs at trailheads, campgrounds, and parking areas.

Management Controls – Some regulatory and ethics signs. Moderate use restrictions including barriers.

Recreation Activity Opportunities – Hunting, fishing, photography, sightseeing, driving for pleasure, wildlife viewing, horse riding and packing, and hiking.

## Outcomes (Experience and Benefits):

Experiences –

- Savoring the total sensory sight, sound, and smell experience of a natural landscape.
- Developing skills and abilities.
- Enjoying exploring on my/our own.
- Enjoying the closeness of family.
- Enjoying the areas wildlife, scenery, views, and aesthetics.

Personal Benefits –

- Improved mental well-being, physical fitness and health maintenance.
- Personal appreciation and satisfaction, a more outdoor-oriented lifestyle.

Community Benefits –

- Maintenance of community's distinctive recreation/tourism market niche or character.
- Increased desirability as a place to live or retire.
- Heightened sense of satisfaction with our community.

Environmental Benefits –

- Greater sensitivity to/awareness of outdoor aesthetics, nature's art and its elegance.
- Increased appreciation of area's cultural history.

Economic Benefits –

- Positive contributions to local/regional economic stability.
- More positive contributions to local/regional economy.

## S.2.2 Green River

Supporting information: The Green River SRMA is made up of BLM and Bureau of Reclamation managed public lands. The river is very popular for fishing, floating, sightseeing, and hunting and is used by local residents as well as visitors from throughout the nation and from foreign countries. Many visitors traveling to or from Yellowstone National Park spend time in the area. The Green River is listed as a blue-ribbon fishery with semi-developed and primitive put-in and take-outs. The river contains islands, as well as other scattered tracts of public land that provide for river access.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes dispersed recreation areas. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as Visual Resource Management Classes II and III. All motorized use would be limited to designated roads and trails. All river access routes will be preserved. The area is a ROW avoidance area.

Information and Education – Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

### Recreation Setting Characteristics:

#### Physical Setting

Level of:

Remoteness – Within 0.5 mile of low-clearance or passenger vehicle routes.

Naturalness – Character of the natural landscape partially modified, but modifications do not overpower natural landscapes.

Facilities – Facilities such as campsites, restrooms, river access, and trailheads.

#### Social Setting

Level of:

Contacts – Usually 30 encounters/day on travel routes. Group Size – 4-6 people/group.

Evidence of Use – Front Country: Small areas of alteration prevalent. Surface vegetation gone with compacted soils observed. Sounds of people regularly heard. Middle Country: Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.

#### Administrative Setting

Level of:

Motorized Use – The majority of the river tracts are a Front Country setting where two-wheel drive vehicles are predominant, but also four-wheel drive vehicles and non-motorized mechanized use occurs.

Visitor Services – On site controls and services are present but harmonize with the natural environment.

Management Controls – Continue to provide for experiences and associated facilities with an emphasis on maintaining Rural to Front Country recreation settings.

Recreation Activity Opportunities – Fishing, hunting, floating, photography, and sightseeing.

### Outcomes (Experience and Benefits):

Experiences –

- Enjoy going exploring on my/our own.
- Enjoy the closeness of family.
- Experiencing a greater sense of independence.
- Testing endurance.
- Enjoy risk taking adventure.

Personal Benefits –

- Improved mental well-being.
- Closer relationship with the natural world.
- Enhanced sense of personal freedom.

Community Benefits –

- Heightened sense of satisfaction with our area as a place to live.
- Greater community involvement in recreation and other land use decisions.

Environmental Benefits –

- Maintenance of distinctive recreation character.
- Greater retention of distinctive natural landscape features.

Economic Benefits –

- Increased local job opportunities.
- Increased local tourism revenue.
- Improved local economic stability.

## S.2.3 Killpecker Sand Dunes Open Play Area

Supporting information: This area is located 23 miles north and east of the city of Rock Springs, Wyoming. This area is currently being used for cross country and off-road motor vehicle use by both off-highway vehicles (OHV) and motorcycles as well as other specialty designed vehicles such as sand rails and utility terrain vehicles (UTV). Visitors are from within the local communities, as well as from outside the area. The area is composed of sand dunes and mostly devoid of vegetation.

The Killpecker Sand Dunes area provides for exceptional motorized hill climbing opportunities ranging from novice riders to very challenging climbs for the experienced riders. Local communities have identified this area as highly desired for motorized recreational opportunities.

## Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes developed campgrounds and dispersed camping and recreation areas. In areas where overnight camping is allowed, there is a 14-day camping limit. Only the shifting sand portion of the sand dunes is available for off road use.

Administration – The area would be managed as Visual Resource Management Class III. Mineral material sales and/or free use permits will be prohibited.

Information and Education – Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

## Recreation Setting Characteristics:

### Physical Setting

Level of:

Remoteness – Within 0.5 mile of primary roads.

Naturalness – Character of the natural landscape considerably modified.

Facilities – Modern facilities such as campgrounds and occasional exhibits.

### Social Setting

Level of:

Contacts – Usually 40 encounters/day on travel routes.

Group Size – 15-25 people/group.

Evidence of Use – A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

### Administrative Setting

Level of:

Motorized Use – Ordinary vehicle traffic is characteristic.

Visitor Services – Information materials plus experience and benefit descriptions.

Management Controls – Regulations strict on speed limits and use in campground and ethics signage prominent.

Recreation Activity Opportunities – Driving for pleasure, OHV hill climbing and driving.

### Outcomes (Experience and Benefits):

Experiences –

- Developing skills and abilities.
- Enjoying risk-taking adventure.
- Being around people I know and enjoy.

Personal Benefits –

- Improved physical fitness and health maintenance.
- More competitive spirit.
- Improved skills for outdoor enjoyment.

Community Benefits –

- Heightened sense of satisfaction with our community.
- More informed citizenry about where to go for different kinds of recreation experiences and benefits.

Environmental Benefits –

- Greater community ownership and stewardship of recreation and natural resources.
- Maintenance of distinctive recreation setting character.

Economic Benefits –

- Improved local economic stability.
- Increased local tourism.
- Greater value-added local services and industry.

## S.2.4 Continental Divide National Scenic Trail

Supporting information: The Continental Divide National Scenic Trail (CDNST) SRMA is made up of BLM-managed public lands in the northeast corner of the RSFO near the Continental Divide. Nine miles of the CDNST are located in the RSFO entering from the Lander Field Office and exiting into the Bridger Teton National Forest. A spur route is located between county road 4-74 along the north boundary of the Honeycomb Buttes Wilderness Study Area.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes dispersed recreation and camping areas. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as Visual Resource Management Class II within three miles or the visual horizon, whichever is closest. All motorized use would be limited to designated roads and trails. The area within one mile of the trail is a ROW avoidance area.

Information and Education – Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

## Recreation Setting Characteristics:

### Physical Setting

Level of:

Remoteness – Within 0.5 mile of two track routes.

Naturalness – Natural landscape with modifications in harmony with surroundings and not visually obvious.

Facilities – Developed trails made mostly of native materials, structures are rare and isolated.

### Social Setting

Level of:

Contacts – 7-15 encounters/day on travel routes.

Group Size – 4-6 people per group.

Evidence of Use – Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.

### Administrative Setting

Level of:

Motorized Use – Four-wheel drive vehicles, ATVs, and dirt bikes along the two track routes. Non-motorized mechanized use as well as pedestrian use along the 0.5 mile single track trail.

Visitor Services – Basic maps, staff infrequently present to provide onsite assistance.

Management Controls – Basic user regulations at key access points. Minimum use restrictions.

Recreation Activity Opportunities – Hiking, mountain biking, photography, and nature viewing.

## Outcomes (Experience and Benefits):

Experiences -

- Enjoy going exploring on my/our own.
- Enjoy the closeness of family.
- Experiencing a greater sense of independence.
- Testing endurance.
- Enjoy risk taking adventure.

Personal Benefits –

- Improved mental well-being.

- Enhanced sense of personal freedom.
- Improved physical fitness and health maintenance.

Community Benefits –

- Greater household awareness of, and appreciation for our natural and cultural heritage.
- More informed citizenry about where to go for different kinds of recreation experiences and benefits.

Environmental Benefits –

- Greater community ownership and stewardship of recreation and natural resources.
- Increased awareness and protection of natural landscapes.

Economic Benefits –

- Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits.
- Increased local tourism revenue.
- Improved local economic stability.

## S.2.5 Continental Divide Snow Machine Trail

Supporting information: The Continental Divide Snow Machine Trail (CDSMT) SRMA is made up of BLM-managed public lands in the northeast corner of the RSFO near the Continental Divide. Seven miles of the CDSMT is located in the RSFO entering from the Lander Field Office and exiting into the Bridger Teton National Forest.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes developed camping areas and dispersed camping uses. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as Visual Resource Management Class II within three miles or the visual horizon, whichever is closest. All motorized use would be limited to designated roads and trails. Over the snow vehicle use is limited to areas where snow is a minimum of 8” deep. The area is a ROW avoidance area.

Information and Education – Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored once per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

### Recreation Setting Characteristics:

#### Physical Setting

Level of:

Remoteness – More than 0.5 mile from improved roads.

Naturalness – Natural landscapes with modifications in harmony with surroundings and not visually obvious.

Facilities – Developed trails mostly of native materials. Structures are rare and isolated.

#### Social Setting

Level of:

Contacts – 7-15 encounters/day.

Group Size – 4-6 people per group.

Evidence of Use – Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.

#### Administrative Setting

Level of:

Motorized Use – Primary use is snow machines.

Visitor Services – Area brochures and maps, staff present only occasionally to provide onsite assistance.

Management Controls – Some regulatory and ethics signs. Moderate use restrictions.

Recreation Activity Opportunities – Hiking, snow machining, nature viewing, and skiing.

## Outcomes (Experience and Benefits)

Experiences –

- Enjoy going exploring on my/our own.
- Enjoy the closeness of family.
- Experiencing a greater sense of independence.
- Testing endurance.
- Enjoy risk taking adventure.

Personal Benefits –

- Improved mental well-being.
- Enhanced sense of personal freedom.
- Improved physical fitness and health maintenance.
- Greater family bonding.

Community Benefits –

- Heightened sense of satisfaction with our community.
- Greater community involvement in recreation and other land use decisions.

Environmental Benefits –

- Increased awareness and protection of natural landscapes.
- Greater retention of distinctive natural landscape features.

Economic Benefits –

- Greater value-added local services.
- Increased local job opportunities.
- Increased local tourism revenue.
- Improved local economic stability.

## S.2.6 Oregon and Mormon Pioneer National Historic Trail

Supporting information: The Oregon and Mormon Pioneer National Historic Trails SRMA is made up of BLM-managed public lands in the RSFO following four congressionally designated Historic Trails. These four trails cross through the RSFO in the area north of Interstate 80, and are the Oregon, California, Mormon Pioneer and Pony Express Trails.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes the trails and a three-mile buffer on both sides. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as Visual Resource Management Class II within three miles or the visual horizon, whichever is closer. All motorized use is limited to designated roads and trails. The area within one mile of the trail is a ROW avoidance area.

Information and Education – Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

### Recreation Setting Characteristics:

#### Physical Setting

Level of:

Remoteness – Within 0.5 mile of four-wheel drive two track routes.

Naturalness – Character of the natural landscape retained. A few modifications contrast with the character of the landscape.

Facilities – Maintained and marked trails, simple trailhead developments.

#### Social Setting

Level of:

Contacts – 15-29 encounters on travel routes.

Group Size – 7-12 people/group.

Evidence of Use – Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.

#### Administrative Setting

Level of:

Motorized Use – Four-wheel drive vehicles, ATVs and dirt bikes in addition to nonmotorized mechanized use.

Visitor Services – Area brochures and maps, staff occasionally present to provide onsite assistance. Management Controls – Some regulatory and ethics signs. Moderate use restrictions.

Recreation Activity Opportunities – Hiking, mountain biking, photography, heritage tourism including wagon train and hand cart reenactment.

## Outcomes (Experience and Benefits):

Experiences –

- Enjoy going exploring on my/our own.
- Enjoy the closeness of family.
- Experiencing a greater sense of independence.
- Testing endurance.
- Enjoy risk taking adventure.

Personal Benefits –

- Improved mental well-being.
- Enhanced sense of personal freedom.
- Improved physical fitness and health maintenance.
- Greater family bonding.

Community Benefits –

- Greater household awareness of and appreciation for our natural and cultural heritage.
- More informed citizenry about where to go for different kinds of recreation experiences and benefits.

Environmental Benefits –

- Greater protection of area historic structures and archaeological sites.
- Increased awareness and protection of natural landscapes.

Economic Benefits –

- More positive contributions to local-regional economy.
- Maintenance of community's distinctive recreation/tourism market niche or character.

## S.2.7 Red Creek Badlands

Supporting information: The Red Creek Badlands is rich in natural recreational resources with dramatic landscapes. Management objectives are to maintain the primitive to semi-primitive setting and wilderness characteristics, including the Red Creek Wilderness Study Area (WSA), wildlife, and wild horses which cater to primitive and semi-primitive recreational experiences.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes dispersed camping and recreation areas. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as Visual Resource Management Class I in the Red Creek WSA and Classes II and III in all other areas. All motorized use would be limited to designated roads and trails. The area is a ROW avoidance area.

Information and Education – Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

### Recreation Setting Characteristics:

#### Physical Setting

Level of:

Remoteness – More than 0.5 mile from motorized routes.

Naturalness – Undisturbed natural landscapes.

Facilities – No structures.

#### Social Setting

Level of:

Contacts – Fewer than 3-6 encounters/day in area and on travel routes.

Group Size – Fewer than or equal to 3 people/group.

Evidence of Use – No alterations of the natural terrain. Sounds of people are rare.

#### Administrative Setting

Level of:

Motorized Use – Four-wheel drive vehicles, ATVs, and dirt bikes in addition to nonmotorized mechanized use.

Visitor Services – No maps or brochures available onsite, and staff are rarely available.

Management controls – On site controls and services present at key access points, but subtle.

Recreation Activity Opportunities – Hiking, hunting, camping, mountain biking, and photography.

### Outcomes (Experience and Benefits):

Experiences –

- Enjoy going exploring on my/our own.
- Enjoy the closeness of family.
- Experiencing a greater sense of independence.
- Testing endurance.
- Enjoy risk taking adventure.

Personal Benefits –

- Improved mental well-being.
- Closer relationship with the natural world.
- Enhanced sense of personal freedom.
- Improved physical fitness and health maintenance.
- Greater family bonding.

Community Benefits –

- Greater community involvement in recreation and other land use decisions.
- Heightened sense of satisfaction with our community.

Environmental Benefits –

- Maintenance of distinctive recreation setting character.
- Greater community ownership and stewardship of recreation and natural resources.

Economic Benefits –

- More positive contributions to local-regional economy.
- Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits.

## S.2.8 Little Mountain

Supporting information: Little Mountain is located south of Rock Springs, Wyoming. The Little Mountain area is a very popular destination for both local residents and out-of-region visitors. The area is abundant with a wide variety of wildlife and dramatic scenery. This SRMA is necessary to accommodate semi-primitive to middle country recreational experiences in a recreational resource rich environment.

### Land Use Plan Management Actions/Allowable Uses and Implementation Actions:

Management – The area includes dispersed recreation and camping areas. In areas where overnight camping is allowed, there is a 14-day camping limit.

Administration – The area would be managed as a Visual Resource Management Class II. All motorized use would be limited to designated roads and trails. The area is a ROW avoidance area. A withdrawal from appropriation under the mining laws will be pursued.

Information and Education –Signage and other visitor controls are installed and more would be added if needed to meet management objectives.

Monitoring – Sites and facilities would be monitored twice per month for each month the area is accessible by the public. Monitoring would include visitor use, recreation caused resource effects or impacts, and visitor satisfaction.

## Recreation Setting Characteristics:

### Physical Setting

Level of:

Remoteness – Within 0.5 mile of mechanized trails/routes.

Naturalness – Natural landscape with modification in harmony with surroundings and not visually obvious.

Facilities – Structures are rare and isolated.

### Social Setting

Level of:

Contacts – 7-15 encounters/day on travel routes.

Group Size – 4-6 people/group.

Evidence of Use – Areas of alteration uncommon. Little surface vegetation wear observed, sounds of people infrequent.

### Administrative Setting

Level of:

Motorized Use – Four-wheel drive vehicles, ATVs, dirt bikes, or snowmobiles in addition to non-motorized mechanized use.

Visitor Services – Basic maps, staff infrequently present to provide onsite assistance.

Management Controls – Basic user regulations at key access points. Minimum use restrictions.

Recreation Activity Opportunities – Hiking, hunting, wildlife photography, and sightseeing.

## Outcomes (Experience and Benefits):

Experiences –

- Savoring the total sensory – sight, sound, and smell – experience of a natural landscape.
- Feeling good about solitude.

- Being isolated and independent.
- Enjoy having easy access to natural landscapes.

Personal Benefits –

- Closer relationship with the natural world.
- Improved mental well-being.

Community Benefits –

- Heightened sense of satisfaction with our community.
- Greater community involvement in recreation and other land use decisions.

Environmental Benefits –

- Maintenance of distinctive recreation setting character.
- Greater community ownership and stewardship of recreation and natural resources.

Economic Benefits –

- Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits.
- Increased desirability as a place to live or retire.

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# APPENDIX T–CUMULATIVE AND OTHER IMPACTS

## T.1 CUMULATIVE IMPACTS

This section defines cumulative impacts, describes the methodology used for assessing these impacts, describes projects and activities considered in this assessment, and presents the results organized by resource topic.

Cumulative impacts are the effects on the environment that result from implementing any of the alternatives in combination with other actions outside the scope of the plan revision, either within the planning area or outside it. The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) define cumulative impacts as:

> *"The impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." (40 Code of Federal Regulations [CFR] §1508.7).*

The real effect of any single action cannot be determined by considering that action in isolation but must be determined by considering the likely result of that action in conjunction with many others. The cumulative impact analysis for the Proposed Resource Management Plan (RMP) and final Environmental Impact Statement (EIS) evaluates the potential impacts associated with the management alternatives in combination with the potential impacts associated with other relevant activities that have occurred, are occurring, or are likely to occur in the vicinity of the planning area.

### T.1.1 Cumulative Analysis Methodology

Land use planning is the Bureau of Land Management's (BLM) broadest level of decision making. BLM planning-level decisions are programmatic decisions that allocate resources or specify allowable uses in all or portions of the planning area to emphasize certain management direction. Site-specific actions are rarely addressed in an RMP. As a result, the cumulative impact analysis is also broad and general in nature. It will present ranges and qualitative conclusions as opposed to bounded quantified details. These cumulative impacts will then be considered in subsequent NEPA documents that analyze specific projects or programs. Examples include oil and gas field development plans, livestock grazing allotment management plans (AMP), and individual authorizations such as rights-of-way (ROW) or special recreation permits.

Analysis and description of the identifiable effects of past actions are required to the extent they are relevant and useful in analyzing whether the reasonably foreseeable effects of the alternatives may have a continuing, additive, and significant relationship to those present effects. Based on scoping, agencies have discretion on what is useful concerning past action for the agency's analysis of the effects of present action and its reasonable alternatives. Effects of past actions and activities on resources are manifested in the current condition of the resource, which is described in Chapter 3 (Affected Environment) for resources on lands administered by the BLM within the planning area. Specific information presented in Chapter 3 is not repeated here.

Effects of past actions and activities on resources are manifested in the current condition of the resource, which is described in Chapter 3 (Affected Environment) for resources on lands administered by the BLM within the planning area. The cumulative impact analysis is based on numerous assumptions and projections about future actions and their effects. Detailed information about specific future actions may be unavailable.

General terms such as low, moderate, and high are used to describe the intensity of effects. The cumulative impact analysis also compares the relative intensity of effects between alternatives.

This analysis focuses on RMP actions that, when combined with other past, present, and reasonably foreseeable future actions, would collectively be significant. Not all issues identified for direct or indirect impact assessment in the RMP are analyzed for cumulative effects. Because of the wide geographic scope of a cumulative impact assessment and the variety of activities assessed, cumulative impacts are commonly examined at a more qualitative and less detailed level than are direct and indirect impacts.

Public documents prepared by federal, state, and local government agencies are the primary sources of information regarding past, present, and future actions considered in the cumulative effects analysis. Actions undertaken by private persons and entities are assumed to be captured in the information made available by such agencies. Speculative or uncommitted projects are not included in the projections. These projections are not planning decisions. Using them in this analysis does not constitute approval by the BLM, or any authorizing agency. These projections do not set a limit or cap on future BLM actions. Unforeseen changes in such factors as economics; public demand; and federal, state, and local laws and policies could result in different outcomes than those projected for this analysis.

Potential cumulative impacts are described for each affected resource within a defined cumulative impact analysis area (CIAA). The CIAA covers different geographic areas depending on the specific resource being evaluated. The CIAAs are described in each of the resource sections below. CIAAs that extend beyond the planning area are largely for resources that are mobile or migrate, compared to resources that are stationary. For example, the air quality CIAA is large because it is based on the complex interaction between climatic factors, terrain, and the potential for significant impacts to occur in sensitive areas within the airshed. Smaller CIAAs were established for resources that are stationary such as cultural resources, minerals, and visual resources. In some cases, these CIAAs might be the same as the planning area boundary. Activities and development that occur within or outside the CIAAs have the potential to create cumulative impacts on the specific resource being analyzed.

The BLM considered the following factors in this cumulative impact assessment:

- Federal, nonfederal, and private actions
- The potential for effects to cross political and administrative boundaries
- Other spatial and temporal characteristics of each affected resource
- The comparative scale of cumulative impacts across alternatives
- Scoping comments.

Temporal and spatial boundaries used in the cumulative analysis are developed on the basis of resources of concern and actions that might contribute to an impact. The baseline date for the cumulative impacts analysis is 2017. The temporal scope of this analysis is a 20-year planning horizon. Land use planning documents are generally evaluated on a 5-year cycle.

Spatial boundaries vary and are larger for resources that are mobile or migrate (e.g., migratory birds) compared with stationary resources. Occasionally, spatial boundaries could be contained within the planning area boundaries or an area within the planning area. Spatial boundaries were developed to facilitate the analysis and are included under the appropriate resource section heading. The cumulative effects analysis for all topics included an analysis of cumulative effects at the planning area level.

## T.1.2 Projects and Activities Considered

The following activities were identified as having the greatest likelihood to generate potential cumulative impacts when added to activities associated with the Rock Springs RMP alternatives:

- BLM and Forest Service land management plans and activities in adjacent planning areas
- Regional oil and gas development activities (e.g., exploration, production, and pipeline development)
- Regional recreation activities (e.g., hunting, off-highway vehicle (OHV) use, dispersed recreation)
- Economic development activities in Lincoln, Sweetwater, Uinta, Sublette, and Fremont Counties.

Activities and development that occur within the CIAAs have the potential to create cumulative impacts on the specific resource being analyzed. Oil and gas development presents the highest likelihood for impacts within the planning area and in southwest Wyoming as a whole. Anticipated oil and gas projects within the planning area are encompassed by the oil and gas reasonable foreseeable development (RFD) for the planning area. Mineral development and other actions that would create the potential for cumulative impacts are listed in Table T-1 and Table T-2. The projects listed in Table T-2 are not presented as an exhaustive list of actions, but every effort has been made to present a representative list of actions that could contribute to cumulative impacts.

**Table T-1. Summary of Oil and Gas Reasonable Foreseeable Development for Public Lands and Mineral Estate in Southwestern Wyoming**

| Planning Area | Existing Wells | Public Land and Mineral Estate RFD | Private and State Lands RFD | Total Oil and Gas RFD | Total Potential Wells (existing plus RFD) |
|---|---|---|---|---|---|
| Kemmerer Field Office | 1,562 | 1,221 | 1,459 | 2,680 | 4,242 |
| Pinedale Field Office | 2,970 | 7,804 | 1,247 | 9,051 | 12,021 |
| Rawlins Field Office | 3,450 | 4,087 | 5,111 | 9,198 | 12,648 |
| Rock Springs Field Office | 6,095 | 4,648 | 1,087 | 5,735 | 11,830 |
| Total | 14,077 | 17,760 | 8,904 | 26,664 | 40,741 |

**Table T-2. Summary of Other Activities Considered**

| Project Title | Project Description |
|---|---|
| Big Sandy Rock Sill | Provides artificial habitat for increasing fish populations in the Big Sandy River. On-ground project activity ongoing. |
| Bird Canyon Field Natural Gas Development (EIS) | Crown Energy and Koch Exploration Company are proposing new development in the existing Bird Canyon Field. Development consists of up to 371 new wells (234-Crown, 137-Koch) over 6-12 years with associated road development. The proposal is currently on hold. |
| Bitter Creek Shallow Oil and Gas Project | The project proposes to drill a maximum of 61 wells with an estimated 326 acres of total surface disturbance. The total project area encompasses approximately 17,961 acres: 11,768 acres are federal surface and minerals and 6,193 acres are private surface and minerals. The environmental assessment (EA) was completed in 2005. On-ground project activity ongoing. |

| Project Title | Project Description |
|---|---|
| Black Butte Coal Lease Modification | Project proposed to expand surface mining operations by about 450 acres of federal coal lands. NEPA complete. On-ground project activity ongoing. |
| BLM Wild Horse Gathers | BLM wild horse gathers from herd management areas (HMA) within the five HMAs in the Rock Springs Field Office (RSFO) and adjacent BLM offices. |
| Big Firehole Canyon Fuel Treatment Project | The project proposes to conduct fuel treatments on 400 acres. On-ground project activity ongoing. |
| Browns Spring Fuel Treatment Project | The project conducted fuel treatments on 250 acres in 2011. |
| Copper Ridge Shallow Gas Exploration and Development Pilot Project | The proposal involves drilling, completing, and operating a maximum of 89 shallow gas wells and related production and water disposal facilities in the Copper Ridge Project Area. The project area includes a total of 24,953 acres. The Copper Ridge Project Area overlies an area already developed by two existing oil and gas projects; the Brady and the Jackknife Springs Fields. The EA was completed in 2003. On-ground project activity ongoing. |
| Desolation Road Unit Development | The project includes gas resource exploration and development to include development of up to 17 wells from five well pads in two phases. Phase 1 would be to drill two exploratory gas wells from two well pads. If successful, Phase 2 would be to drill up to 15 wells from those two pads, add three more well pads and construct the associated access roads and pipelines. Project withdrawn 2021. |
| FMC Grange Optimization Project | Enhance solution mining capabilities at FMC Granger. NEPA in progress. |
| Green River RMP | Comprehensive land use plan (LUP) focuses on similar resource issues and management to the south of the planning area. Green River RMP manages portions of the Pinedale planning area CIAAs for air, cultural, forestry, recreation, vegetation, visual resource management (VRM), watersheds, and wildlife habitat management. On-ground project activity ongoing. |
| Henry's Fork Colorado River Salinity Project | The Natural Resources Conservation Service (NRCS) has developed this plan and EIS to reduce 6,540 tons of annual salt loading to the Colorado River system by implementing conservation practices in the upper Henrys Fork project area. NEPA complete. On-ground project activity ongoing. |
| Hiawatha EIS | The Operators propose to drill as many as 4,208 new wells within the project area, which represents a full development scenario. Project withdrawn 2019. |
| Industrial Plant shut downs and overhauls | On a yearly basis, many of the Industrial Plants shut down a portion of their operations for overhauls. These shuts downs collectively can bring annually hundreds of workers into the County. |
| Jim Bridger Coal Lease | Leases modified in July 2011 and May 2013, totaling 2,562.54 acres. NEPA documents complete. On-ground project activity ongoing. |
| Jim Bridger Power Plant | Retrofits to power plant units to accommodate Environmental Protection Agency (EPA) haze rules. |
| Jim Bridger South Wind Project | Wind project; Type II status in 2011. Project closed 2015. |
| Kinney Rim Wind Project | Wind project; Type II status in 2011. Project closed 2016. |
| LaBarge Platform Exploration and Development (EIS) | The Pinedale and Rock Springs Field Offices developing an EIS for the La Barge Platform Project for 838 new natural gas and oil wells from 463 new well pads (vertical and horizontal) over a 40-year project lifespan. Drilling expected to occur over a 10-year period in the Upper Green River Basin, in Sublette and Lincoln counties in western Wyoming. The project area consists of 218,000 acres of federal, state, and private lands. The area is one of the oldest oil and gas fields in the region, dating back roughly 100 years. Project withdrawn in 2015. |
| Little Monument Natural Gas Project | Burlington proposes to drill, complete, and produce approximately 31 additional wells at eight or more wells per section within the Little Monument project area over the next three years. The EA was completed in 2004. On-ground project activity ongoing. |

| Project Title | Project Description |
|---|---|
| Little Red Creek Fuel Treatment Project | The project conducted 400 acres of fuel treatments in 2010. On-ground project activity ongoing. |
| Luman Rim EA | The proposed action is to drill 58 additional natural gas wells in the Luman Rim area of north central Sweetwater County, Wyoming. The EA was completed in 12/2010. On-ground project activity ongoing. |
| Monell Arch Development EA | Proposal submitted by Anadarko Petroleum Corporation to infill drill additional oil and gas wells in the Monell and Arch Units to facilitate product extraction, maximize the economic recovery of the resource, and extend the production life of the units. The Monell Arch area is located in southwestern Wyoming, and is comprised of 22,657 acres of mixed federal, state and private surface lands and 22,658 acres of mixed federal and state mineral lands in Sweetwater County. The operator has proposed approximately 105 new oil wells, 18 $CO_2$ injector wells and two water injection wells that would be drilled within the project area. On-ground project activity ongoing. |
| Monell Enhanced Oil Recovery Project | Anadarko proposes to drill a maximum of 126 wells. The EA was completed in 2005. Drilling began in 2006 and was planned for approximately three to six years. On-ground project activity ongoing. |
| North Dutch John Unit #1 Well | A new oil or gas well proposal inside the North Dutch John Unit in Sweetwater County, Wyoming. An associated access road, two-track upgrade and well pad is also included in with this analysis, with a total proposed disturbance of 10.4 acres. Project withdrawn 2020. |
| NPL (Normally Pressured Lance) Project | The NPL Project Area, located about 68 miles northwest of Rock Springs, Wyoming, covers approximately 141,000 acres administered by the BLM Pinedale Field Office and RSFO. For all project components, the estimated total initial surface disturbance is estimated to be about 6,625 acres, or 4.7% of the NPL surface acreage. Up to 3,500 new wells would be drilled over a ten-year period starting in March 2013 at an average rate of up to 350 wells per year.<br>Outside of the sage-grouse core area, drilling would occur on an average of four centralized, multi-well pads per section. Inside the sage-grouse core area, drilling would take place from one multi-well pad per 640-acre area (not section). Each multi-well drilling and completion pad would encompass up to approximately 18 acres per location and would support between 1 and 64 wells. Record of Decision issued August 2018. |
| Pacific Rim Shallow Gas Exploration and Development Project | Project proposes to drill a maximum of 120 wells. The EA was completed in 2004. On-ground project activity ongoing. |
| Pit 14 Coal Lease | 1,399 acres leased for coal development. The EIS was completed in 2007. On-ground project activity ongoing. |
| Puma Deep Prospect Area Gas Development Project | Davis Petroleum Corporation proposes to construct, drill, and complete 10 wells in addition to the five already existing wells on the 8,800-acre federally administered minerals. The EA was completed in 2009. On-ground project activity ongoing. |
| Riley Ridge to Natrona Pipeline | The Riley Ridge to Natrona proposal is to construct pipelines of various sizes along a 243-mile linear ROW through Fremont, Sublette, Sweetwater and Natrona counties. Other construction activities include the Riley Ridge Sweetening Plant, access roads, power lines, injection wells, and power line. Project completed 2019. |
| Rock Springs RMP Revision (EIS) | Revise Green River RMP. |
| Simplot - Reliability Project | Expansion to increase plant capacity. |
| Sweeney Ranch Wind Project | The project involves constructing a wind development project with a maximum of 119 wind turbine generators within the RSFO boundary. Wildlife surveys were initiated in 2010/2011. Project closed 2015. |

| Project Title | Project Description |
|---|---|
| Sweetwater Solar Energy Project | The project proposes construction of a solar generation project approximately 11 miles northwest of the City of Green River: Photovoltaic collecting arrays, perimeter roads, buried electrical collection lines, an operation and maintenance facility and overhead electrical power line. The Project encompasses approximately 703 acres of which 640 acres are managed by the BLM. Project completed 2018. |
| Ten Mile Rim Coal Lease | Coal lease on the Ten Mile Rim Tract (WYW-154595); includes 2,242.18 acres of federal coal lands. The EA was completed in 2004. Coal production ongoing. |
| Vermillion Basin Natural Gas Exploratory and Development Project | Proposal to drill up to 56 natural gas wells in and around three existing, producing oil and gas units (Trail, Kinney Rim, and Canyon Creek). The EA was completed in 2002. On-ground project activity ongoing. |

## T.1.3 Cumulative Impacts by Resource

### Air Quality

#### Greenhouse Gases and Climate Change

Concentrations of certain gases in the earth's atmosphere have been identified as being effective at trapping heat reflected off the earth's surface thereby creating a "greenhouse effect." As concentrations of these greenhouse gases increase, the earth's surface warms, the composition of the atmosphere changes, and global climate is affected. Concentrations of greenhouse gases have increased dramatically in the earth's atmosphere in the past century. Anthropogenic (man-made) sources and human activities have been attributed to these increases particularly for $CO_2$, $CH_4$, $N_2O$, and fluorinated gases (EPA 2018).

This Air Quality Technical Support Document is presented in Appendix P and describes the processes used to conduct the air quality impact assessment and provides summaries of relevant analysis data. Table T-3 shows the total federal direct and indirect GHG emissions across all alternatives for oil and gas over the 20-year analysis period. As mentioned in Section 4.3.4, Alternative C has the potential to emit the most direct GHG emissions while Alternative B direct GHG emissions are the least of all alternatives. Alternative B most closely aligns with the DOI's climate change priorities among all alternatives. Emissions under the Proposed RMP are anticipated to be between Alternatives B and D, but more similar to Alternative D.

**Table T-3. Total Federal Direct and Indirect Oil and Gas GHG Emissions (MT)**

| Alternative | End-Use/Indirect Oil and Gas Emissions | | | Sum of Direct and Indirect Oil and Gas Emissions | | |
|---|---|---|---|---|---|---|
| | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2$ | $CH_4$ | $N_2O$ |
| A | 310,991,900 | 11,569 | 892 | 366,901,300 | 578,495 | 1,657 |
| B | 181,625,860 | 6,719 | 519 | 213,133,065 | 336,806 | 955 |
| C | 315,829,639 | 11,678 | 902 | 372,645,808 | 588,054 | 1,680 |
| D | 308,401,354 | 11,520 | 887 | 363,863,661 | 573,587 | 1,645 |

Table T-4 presents not only all non-oil and gas direct and indirect GHG emissions but also the grand total of all direct and indirect GHG emissions from BLM-authorized activities over the 20-year analysis period. Appendix R-Air Quality Adaptive Management Strategy Section R.5.9 provides a list of best management practices for oil and gas development (which constitute the largest proportion of total anticipated emissions) that address both air quality and GHG emissions reductions. Emissions under the Proposed RMP are anticipated to be between Alternatives B and D, but more similar to Alternative D.

## Table T-4. Non-Oil and Gas Direct and Indirect Emissions and Sum of All Direct and Indirect GHG Emissions from BLM-Authorized Activities (MT)

| Alternative | Sum of Direct and Indirect Emissions from Non-Oil and Gas Activities | | | Grand Total for Direct and Indirect GHG Emissions from All BLM-Authorized Activities | | |
|---|---|---|---|---|---|---|
| | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2$ | $CH_4$ | $N_2O$ |
| A | 24,298,362 | 226,717 | 378 | 391,199,662 | 805,213 | 2,035 |
| B | 24,264,316 | 64,548 | 47 | 237,397,380 | 401,354 | 1,002 |
| C | 24,373,117 | 235,863 | 1,704 | 397,018,926 | 823,917 | 3,383 |
| D | 24,298,362 | 226,717 | 378 | 388,162,022 | 800,305 | 2,024 |

The EPA has determined that six greenhouse gases are air pollutants and subject to regulation under The Clean Air Act (CAA): $CO_2$, $CH_4$, $N_2O$, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Of these greenhouse gases, $CO_2$, $CH_4$, and $N_2O$ are commonly emitted by the types of activities included in this analysis, while the remaining three greenhouse gases are emitted in extremely small quantities or are not emitted at all. Greenhouse gas emissions from management actions and activities were estimated for each alternative in this analysis for $CO_2$, $CH_4$, and $N_2O$.

A greenhouse gases' ability to contribute to global warming is based on its longevity in the atmosphere and its heat-trapping capacity. In order to aggregate greenhouse gas emissions and assess their contribution to climate change, the EPA has assigned each greenhouse gas a global warming potential (GWP) that is used to calculate $CO_2$ equivalents. Under all of the alternatives, a variety of activities in the planning area would generate greenhouse gas emissions, including $CO_2$, $CH_4$, and $N_2O$. These activities include oil and gas and other minerals development (primarily coal and trona mining), fire events, motorized vehicle use, livestock grazing, facilities development, and other surface-disturbing activities. Since the Industrial Revolution, atmospheric concentrations of $CO_2$ have risen more than 40% and continues to rise at a rate about 0.4% per year (IPCC 2013), principally due to the combustion of fossil fuels. Fossil fuel combustion accounted for 93.5% of national $CO_2$ emissions in 2016 (EPA 2018). $CH_4$ is more than 28 times as effective as $CO_2$ at trapping heat in the atmosphere and accounts for 28 times more greenhouse gas for the GWP over 100 years and 84 in greenhouse gas for the GWP for 20 years (IPCC 2014) and accounted for about 10% of greenhouse gas emissions in 2016 (EPA 2018). $N_2O$ is 265 times as effective as $CO_2$ at trapping heat in the atmosphere and accounts for 265 times more greenhouse gas for the GWP over 100 years and 264 in greenhouse gas for the GWP for 20 years (IPCC 2014) and accounted for about 6% of greenhouse gas emissions in 2016 (EPA 2018). $CO_2$ equivalent is a measurement that allows an aggregate comparison of multiple greenhouse gases (e.g., $CO_2$, $CH_4$, and $N_2O$), created by multiplying the actual or anticipated emissions of each gas by its relative GWP. Therefore, the GWPs used for greenhouse gas emission calculations and reporting for the Rock Springs planning area for 100 years are $CO_2$ = 1, $CH_4$ = 28, and $N_2O$ = 265 and for 20 years are $CO_2$ = 1, $CH_4$ = 84, and $N_2O$ = 264. Table T-5 shows the estimated annual emissions of the greenhouse gases for each alternative in year 1, year 10, and year 20.

## Table T-5. Total Estimated Greenhouse Gas Emissions Summary for Bureau of Land Management Activities in the Rock Springs Planning Area (Tons or Metric Tonnes)

| Scenario | $CO_2$ (tons) | $CH_4$ (tons) | $N_2O$ (tons) | $CO_2$eq tons (100 Year) | $CO_2$eq metric tonnes (100 Year)* | $CO_2$eq tons (20 Year)** |
|---|---|---|---|---|---|---|
| Alternative A - Year 1 | 1,792,764 | 26,021 | 39 | 3,476,501 | 3,153,829 | 4,083,849 |
| Alternative B - Year 1 | 1,564,352 | 16,782 | 20 | 2,984,314 | 2,707,325 | 3,074,262 |

| Scenario | $CO_2$ (tons) | $CH_4$ (tons) | $N_2O$ (tons) | $CO_2$eq tons (100 Year) | $CO_2$eq metric tonnes (100 Year)* | $CO_2$eq tons (20 Year)** |
|---|---|---|---|---|---|---|
| Alternative C - Year 1 | 1,807,623 | 26,560 | 106 | 3,524,047 | 3,196,962 | 4,161,517 |
| Alternative D - Year 1 | 1,790,750 | 26,013 | 39 | 3,474,249 | 3,151,786 | 4,081,131 |
| Alternative A - Year 10 | 2,981,005 | 38,933 | 56 | 5,030,699 | 3,706,757 | 6,361,095 |
| Alternative B - Year 10 | 1,824,372 | 19,671 | 24 | 3,326,211 | 3,017,488 | 3,577,975 |
| Alternative C - Year 10 | 3,036,206 | 40,017 | 123 | 5,133,982 | 4,657,471 | 6,525,008 |
| Alternative D - Year 10 | 2,971,247 | 38,937 | 56 | 5,020,997 | 4,554,973 | 6,351,589 |
| Alternative A - Year 20 | 4,279,554 | 52,984 | 74 | 6,727,520 | 6,103,105 | 8,844,778 |
| Alternative B - Year 20 | 2,097,511 | 22,633 | 28 | 3,683,300 | 3,341,435 | 4,100,930 |
| Alternative C - Year 20 | 4,380,881 | 54,693 | 142 | 6,894,592 | 6,254,671 | 9,107,486 |
| Alternative D - Year 20 | 4,260,853 | 52,955 | 74 | 6,707,907 | 6,085,313 | 8,823,508 |

*GWP-100 yr $CH_4$ = 28, $N_2O$ = 265
** GWP-20 yr $CH_4$ = 84, $N_2O$ = 264

According to the Intergovernmental Panel on Climate Change (IPCC), "*Emission metrics facilitate multi-component climate policies by allowing emissions of different greenhouse gases and other climate forcing agents to be expressed in a common unit (so-called 'CO2-equivalent emissions'). The GWP was introduced in the IPCC First Assessment Report, where it was also used to illustrate the difficulties in comparing components with differing physical properties using a single metric. The 100-year GWP (GWP100) was adopted by the United Nations Framework Convention on Climate Change and its Kyoto Protocol and is now used widely as the default metric. It is only one of several possible emission metrics and time horizons. {WGI 8.7, WGIII 3.9} The choice of emission metric and time horizon depends on type of application and policy context; hence, no single metric is optimal for all policy goals. All metrics have shortcomings, and choices contain value judgments, such as the climate effect considered and the weighting of effects over time (which explicitly or implicitly discounts impacts over time), the climate policy goal and the degree to which metrics incorporate economic or only physical considerations. There are significant uncertainties related to metrics, and the magnitudes of the uncertainties differ across metric type and time horizon. In general, the uncertainty increases for metrics along the cause–effect chain from emission to effects. {WGI 8.7, WGIII 3.9}."* (IPCC 2014)

Typical sources contributing to potential cumulative impacts on air quality would include emissions from conventional oil and gas development, vehicle operations associated with mining activities, and general vehicular activity. Overall, air quality in the Rock Springs planning area is good. In 2012, EPA designated the Upper Green River Basin Area (UGRB) as a nonattainment area for the 2008 ozone NAAQS. The UGRB 2008 ozone nonattainment area includes a portion of Sweetwater County. See 40 CFR § 81.351. In 2016, the EPA determined that the UGRB 2008 ozone marginal nonattainment area had attained the 2008 ozone NAAQS. See 40 CFR §52.2623. However, the EPA has not yet formally re-designated the UGRB from nonattainment to maintenance status for the 2008 ozone NAAQS. In 2018, the EPA designated all areas within Wyoming, including all areas within the Rock Springs planning area, as attainment/unclassifiable for the 2015 ozone NAAQS. Some concentrated emission sources may have health impacts to certain local residents due to the potential levels of pollutants, such as a large plant or mine. Increases in population would likely bring more development and the potential for more emission sources that could degrade air quality in the planning area.

BLM and non-BLM reasonably foreseeable actions are anticipated to increase emissions in the planning area over the life of the plan. For the planning area, the cumulative air quality impacts (as measured against NAAQS and WAAQS) are anticipated to have the same intensity on BLM and non-BLM administered

lands because it is assumed the density of activities are the same in both areas. This conclusion also assumes that cumulative impacts to air quality are equally distributed across the planning area. Because of proposed development restrictions on BLM administered land, the potential for adverse cumulative impacts to air quality are anticipated to be the least under Alternative B, which places the greatest restrictions on resource uses and management actions that contribute emissions, followed by Alternatives D, A, and C. Cumulative emissions are projected to be highest under Alternative C due to fewer proposed development restrictions on BLM administered land. Cumulative emissions within the Planning Area are not anticipated to result in air quality impacts that exceed NAAQS or WAAQS given the rather small amount of emissions from the BLM and other activities.

Estimated future BLM and non-BLM emissions are accounted for in the air quality cumulative emissions analysis. The 2014 Wyoming statewide emissions, which were obtained from the 2014 National Emissions Inventory (NEI) Data (EPA, 2014), were used in this analysis as a comparison. The long-year (year 20) has the largest impact to air quality emissions and therefore was used for the cumulative analysis, as all other years (year 1 and year 10) would have less impact. For each Alternative BLM activities and non-BLM activities (from oil, gas, and coal mining) which occur within the RSFO planning area were reviewed and compared to the 2014 Wyoming statewide estimated emissions (obtained from the 2014 NEI). Specific assumptions include:

- The cumulative impacts from non-BLM mineral actions (oil, gas, and coalbed natural gas [CBNG]) are based on the percent BLM vs. non-BLM mineral estate in the planning area.
- For cumulative impacts associated with other activities (i.e., non-oil and gas), the amount and density of activities is assumed to be the same for both BLM and non-BLM actions.
- Statewide emissions were obtained from the most recent EPA NEI data available from 2014.

Table T-6 shows criteria pollutant and hazardous air pollutants (HAP) emissions from BLM and non-BLM sources. Figure T-1, Figure T-2, Figure T-3, and Figure T-4 show the long year emissions from BLM and non-BLM sources in the planning area under Alternatives A, B, C, and D, respectively. Emissions under the Proposed RMP are anticipated to be between Alternatives B and D, but more similar to Alternative D.

**Table T-6. Comparison of Emissions from Bureau of Land Management and Non-Bureau of Land Management Activities in the Rock Springs Planning Area to Cumulative Annual Statewide Emissions for 2014**

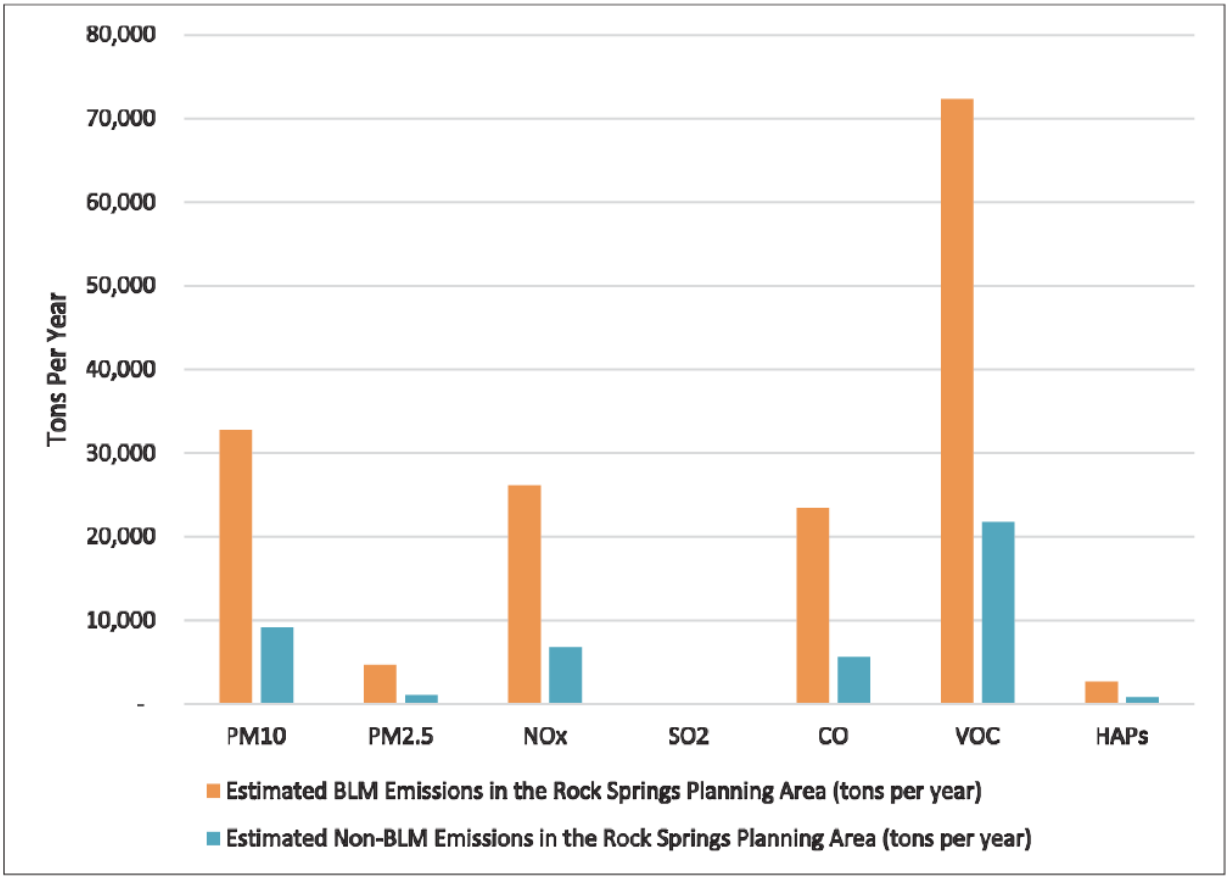
| Pollutant | Estimated BLM Emissions in the Rock Springs Planning Area (tons per year) | Estimated Non-BLM Emissions in the Rock Springs Planning Area (tons per year) | 2014 Wyoming Statewide Emissions (tons per year) | Total Tons per year | % Contribution of Actions within the Rock Springs Planning Area Emission to Statewide Emissions |
|---|---|---|---|---|---|
| **Alternative A - Long Year (Year 20)** | | | | | |
| PM10 | 32,759 | 9,135 | 195,603 | 237,498 | 17.64% |
| PM2.5 | 4,663 | 1,077 | 38,495 | 45,415 | 12.98% |
| NOX | 26,126 | 6,779 | 177,330 | 210,235 | 15.65% |
| SO2 | 50 | 7 | 56,772 | 56,830 | 0.10% |
| CO | 23,454 | 5,609 | 411,274 | 440,337 | 6.60% |
| VOC | 72,334 | 21,782 | 814,311 | 908,427 | 10.36% |
| HAPs | 2,659 | 812 | 81,431 | 84,902 | 4.09% |

| Pollutant | Estimated BLM Emissions in the Rock Springs Planning Area (tons per year) | Estimated Non-BLM Emissions in the Rock Springs Planning Area (tons per year) | 2014 Wyoming Statewide Emissions (tons per year) | Total Tons per year | % Contribution of Actions within the Rock Springs Planning Area Emission to Statewide Emissions |
|---|---|---|---|---|---|
| **Alternative B - Long Year (Year 20)** | | | | | |
| PM10 | 19,633 | 9,658 | 195,603 | 224,894 | 13.02% |
| PM2.5 | 2,898 | 1,157 | 38,495 | 42,550 | 9.53% |
| NOX | 13,931 | 6,772 | 177,330 | 198,033 | 10.45% |
| SO2 | 21 | 7 | 56,772 | 56,800 | 0.05% |
| CO | 11,777 | 5,597 | 411,274 | 428,648 | 4.05% |
| VOC | 33,998 | 21,754 | 814,311 | 870,063 | 6.41% |
| HAPs | 1,278 | 810 | 81,431 | 83,520 | 2.50% |
| **Alternative C - Long Year (Year 20)** | | | | | |
| PM10 | 35,066 | 9,510 | 195,603 | 240,178 | 18.56% |
| PM2.5 | 5,567 | 1,116 | 38,495 | 45,178 | 14.79% |
| NOX | 26,937 | 6,849 | 177,330 | 211,117 | 16.00% |
| SO2 | 117 | 7 | 56,772 | 56,896 | 0.22% |
| CO | 32,594 | 5,694 | 411,274 | 449,563 | 8.52% |
| VOC | 74,347 | 21,971 | 814,311 | 910,629 | 10.58% |
| HAPs | 2,773 | 824 | 81,431 | 85,028 | 4.23% |
| **Alternative D - Long Year (Year 20)** | | | | | |
| PM10 | 33,162 | 9,522 | 195,603 | 238,287 | 17.91% |
| PM2.5 | 4,701 | 1,118 | 38,495 | 44314 | 13.13% |
| NOX | 26,024 | 6,849 | 177,330 | 210,203 | 15.64% |
| SO2 | 50 | 7 | 56,772 | 56,830 | 0.10% |
| CO | 23,415 | 5,694 | 411,274 | 440,383 | 6.61% |
| VOC | 71,912 | 21,971 | 814,311 | 908,194 | 10.34% |
| HAPs | 2,652 | 824 | 81,431 | 84,908 | 4.09% |

### Alternative A

Criteria air pollutant and HAPs, emissions from BLM managed source emissions would be more than non-BLM managed source emissions, however would be less than the 2014 Wyoming statewide emissions in the planning area. Table T-6 shows criteria pollutant and HAP emissions from estimated BLM and non-BLM sources against the Wyoming statewide emissions inventory. $PM_{10}$ is the largest percentage of emissions contribution within the Rock Springs planning area with 17% of the total emissions contributed by activities on BLM land, whereas $SO_2$ is the lowest percentage at 0.1%. Figure T-1 shows the long-year emissions from BLM and non-BLM sources in the planning area under Alternative A.

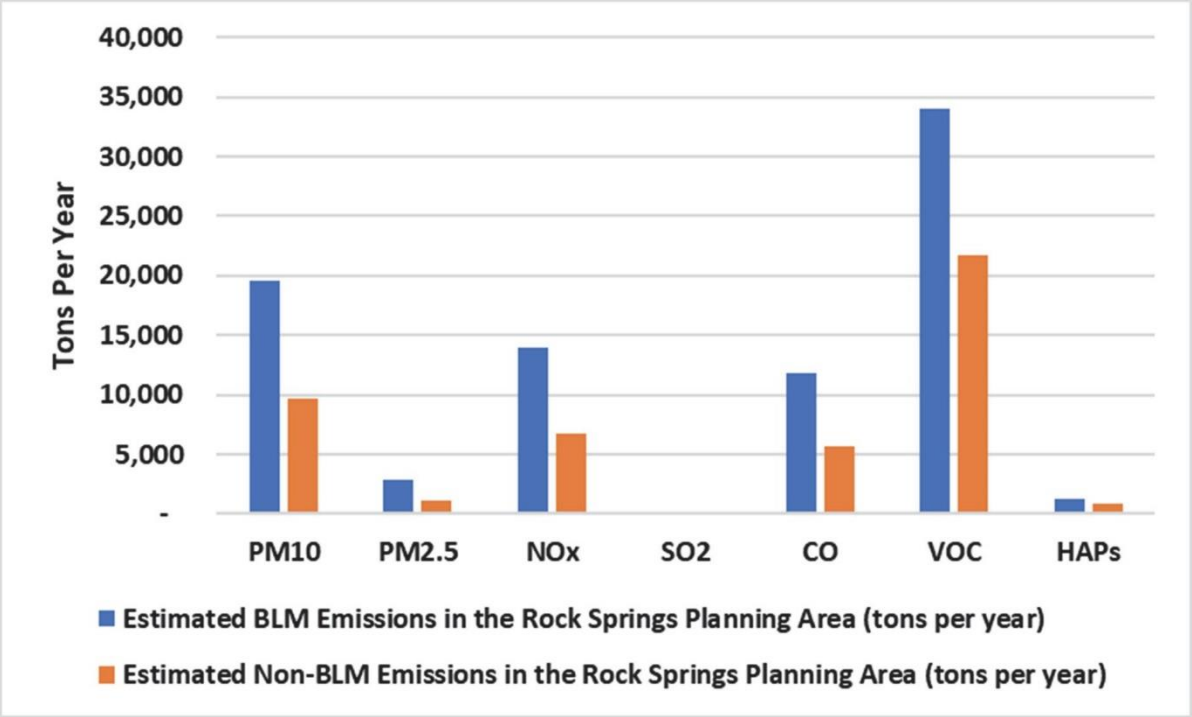
**Figure T-1. Long Year Emissions from Bureau of Land Management and Non-Bureau of Land Management Sources in the Planning Area under Alternative A**




### Alternative B

Alternative B has the smallest cumulative impact with emissions from BLM managed source emissions would be more than non-BLM managed source emissions, however would be less than the 2014 Wyoming statewide emissions in the planning area. Table T-6 shows criteria pollutant and HAP emissions from estimated BLM and non-BLM sources against the Wyoming statewide emissions inventory. $PM_{10}$ is the largest percentage of emissions contribution within the Rock Springs planning area with 13% of the total emissions contributed by activities on BLM land, whereas $SO_2$ is the lowest percentage at 0.05%. Figure T-2 shows the long-year emissions from BLM and non-BLM sources in the planning area under Alternative B.

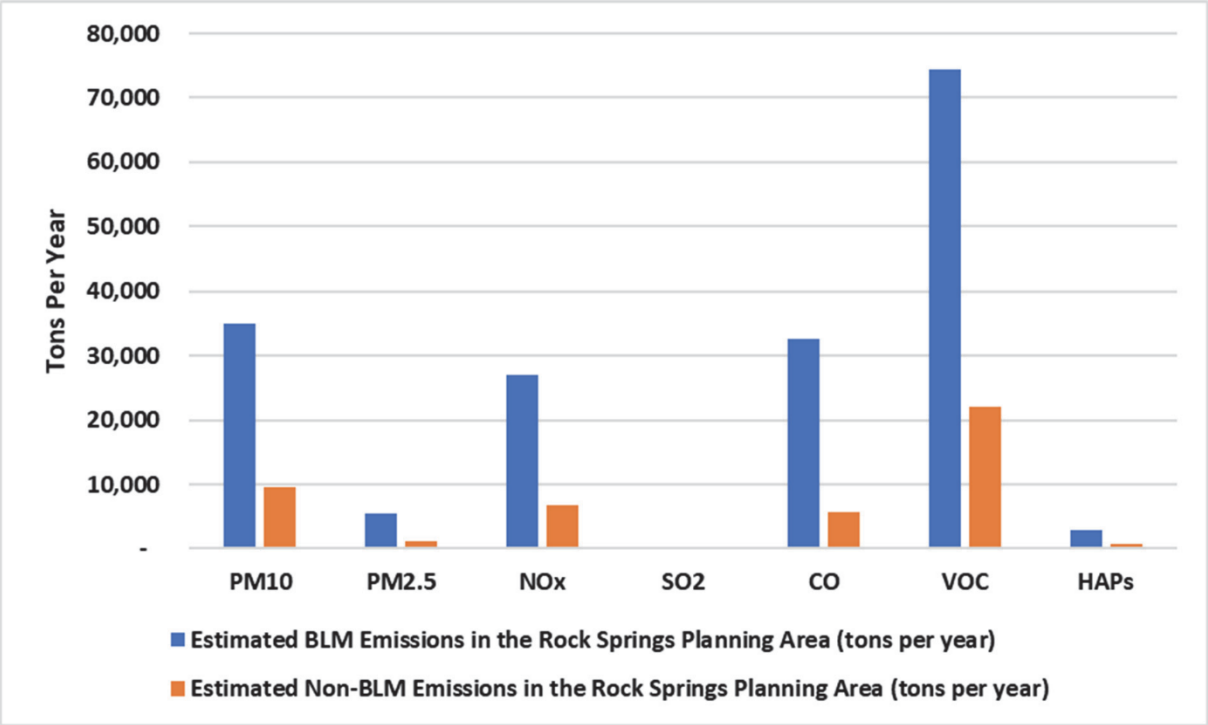
**Figure T-2. Long Year Emissions from Bureau of Land Management and Non-Bureau of Land Management Sources in the Planning Area under Alternative B**




### Alternative C

Alternative C has the largest cumulative impact with emissions from BLM managed source emissions would be more than non-BLM managed source emissions, however would be less than the 2014 Wyoming statewide emissions in the planning area. Table T-6 shows criteria pollutant and HAP emissions from estimated BLM and non-BLM sources against the Wyoming statewide emissions inventory. $PM_{10}$ is the largest percentage of emissions contribution within the Rock Springs planning area with 23% of the total emissions contributed by activities on BLM land, whereas $SO_2$ is the lowest percentage at 0.2%. Figure T-3 shows the long-year emissions from BLM and non-BLM sources in the planning area under Alternative C.

**Figure T-3. Long Year Emissions from Bureau of Land Management and Non-Bureau of Land Management Sources in the Planning Area under Alternative C**

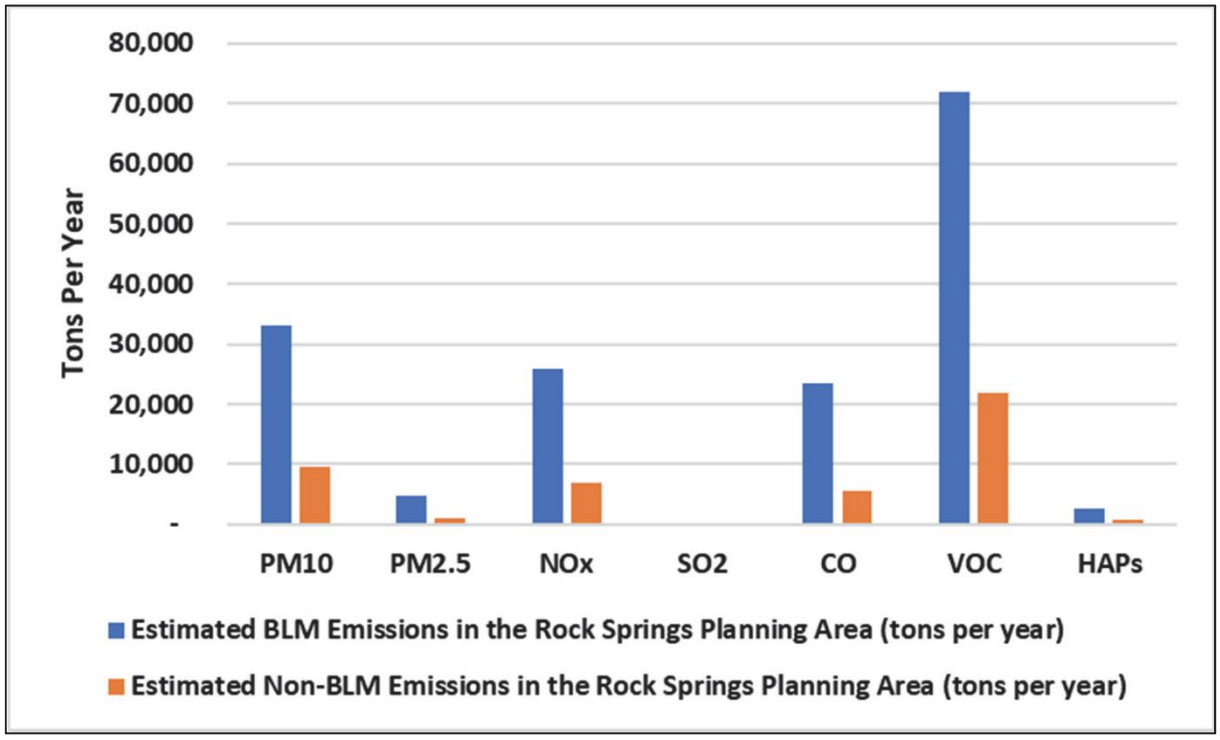



### Alternative D

Alternative D has similar cumulative impact as Alternative A, as emissions from BLM managed source emissions would be more than non-BLM managed source emissions, however would be less than the 2014 Wyoming statewide emissions in the planning area. Table T-6 shows criteria pollutant and HAP emissions from estimated BLM and non-BLM sources against the Wyoming statewide emissions inventory. $PM_{10}$ is the largest percentage of emissions contribution within the Rock Springs planning area with 22% of the total emissions contributed by activities on BLM land, whereas $SO_2$ is the lowest percentage at 0.1%. Figure T-4 shows the long-year emissions from BLM and non-BLM sources in the planning area under Alternative D.

Air resources were evaluated within the planning area to determine how air quality could be affected by future federal actions implemented under this RMP. Actions that initiate or increase emissions of air pollutants can result in negative effects on air resources, including increased concentrations of air pollutants, decreased visibility, increased atmospheric deposition on soils and vegetation, and acidification of sensitive water bodies. Actions that reduce or control emissions of air pollutants can be very effective at improving air quality and preventing degradation.

**Figure T-4. Long Year Emissions from Bureau of Land Management and Non-Bureau of Land Management Sources in the Planning Area under Alternative D**




### Proposed RMP

Estimated emissions under the Proposed RMP are predicted to be between the estimated emissions of Alternative B and Alternative D. However, the land use restrictions and allocations shown in Table ES-1 for the Proposed RMP are generally closer to Alternative D compared to Alternative B. Therefore, the emissions associated with the Proposed RMP are predicted to be closer to Alternative D compared to Alternative B. Refer to Figure T-2 and Figure T-4, above, for the emissions of Alternative B and Alternative D, respectively.

## Greenhouse Gas Emissions

On January 2, 2011, the EPA began covering greenhouse gas emissions under the CAA from mobile and stationary sources of air pollution through prevention of significant deterioration (PSD) and Title V Operating Permit Programs, because of their contribution to global climate change. While leasing actions would not generate any direct or indirect greenhouse gas emissions, the BLM recognizes that the reasonably foreseeable consequence of leasing may be oil and gas development, and that such development could result in an increase in greenhouse gas emissions due to the post production or "downstream" uses of the petroleum products produced from these parcels. The BLM used readily available scientific information and reasonable assumptions about product end use to estimate potential downstream emissions attributable to this lease sale. It should be noted at the outset that the BLM does not exercise control over the specific end use of the oil and gas produced from any individual federal lease and has no authority to direct or regulate the end use of the produced products. As a result, the BLM can only provide an estimate of potential greenhouse gas emissions by assuming that all produced products would eventually be combusted. The uncertainty about end uses is in addition to the uncertainty with regard to the actual levels of development and production that may occur at any given well.

Table T-7, Estimated Greenhouse Gas Emissions from BLM Actions Due to Fossil Fuel Combustion, shows the comparison of greenhouse gas emissions from BLM actions for Alternative C (largest impact alternative) to U.S. reported greenhouse gas emissions from 2018, statewide reported greenhouse gas emissions from 2018, and Sweetwater County reported greenhouse gas emissions from 2018 (EPA 2018). The inventory was obtained from the EPA's Facility Level Information on Greenhouse Gases Tool (FLIGHT) and was based on actual reported emissions for 2018. Greenhouse gas emissions estimated for the largest impact alternative (Alternative C) comprise a total of 64.56% of statewide greenhouse gas emissions. The largest impact of greenhouse gas emissions statewide is natural gas combustion, closely followed by coal combustion. The total estimated greenhouse gas emissions for Alternative C (largest impact alternative) of 36.87 million metric tonnes are approximately equal to 1.2% of the total U.S. 2018 greenhouse gas emissions of 2,987 million metric tonnes of $CO_2$ equivalents (EPA 2018). In this analysis it was assumed that 100% of oil and associated gas produced included in this EIS would be attributed to fossil fuel combustion within the U.S. for residential heating and electricity.

**Table T-7. Estimated Greenhouse Gas Emissions from Bureau of Land Management Actions Due to Fossil Fuel Combustion**

| BLM Alternative C - Long Year (year 20) | | TOTAL U.S. GHG Emission Reported in 2018 | | TOTAL Wyoming GHG Emission Reported in 2018 | | TOTAL Sweetwater County GHG Emission Reported in 2018 | | Total Federal Lands GHG Emissions and Sequestration Reported in 2014 | |
|---|---|---|---|---|---|---|---|---|---|
| **Action** | **Estimated $CO_2eq$ (million metric tons)** | **$CO_2eq$ (million metric tons)** | **% BLM RSFO Contri-bution** | **$CO_2eq$ (million metric tons)** | **% BLM RSFO Contri-bution** | **$CO_2eq$ (million metric tons)** | **% BLM RSFO Contri-bution** | **$CO_2eq$ (million metric tons)** | **% BLM RSFO Contri-bution** |
| Coal Combustion Total | 15.85 | 2,987 | 0.53% | 59.46 | 26.66% | 16.88 | 88.09% | 1,279 | 1.24% |
| Oil Combustion Total | 3.38 | | 0.11% | | 5.69 % | | --* | | 8.99% |
| Natural Gas Combustion Total | 17.47 | | 0.58% | | 29.38% | | --* | | 1.37% |
| Trona Transport Total | 0.16 | | 0.01% | | 0.27% | | 0.90% | | 0.01% |
| **TOTAL Emissions** | **36.87** | | **1.23%** | | **64.56%** | | **88.99%** | | **11.61%** |

* The majority of oil and gas is not combusted in the county; therefore, greenhouse gas downstream emissions are not completed for Sweetwater County.

Several activities contribute to the phenomena of climate change, including emissions of greenhouse gases (especially $CO_2$ and $CH_4$) from fossil fuel development, large wildfires and activities using combustion engines; changes to the natural carbon cycle; and changes to radiative forces and reflectivity (albedo). It is important to note that greenhouse gases will have a sustained climatic impact over different temporal scales. For example, recent emissions of $CO_2$ can influence climate for 100 years.

At this time, the BLM is disclosing the likelihood and potential magnitude of downstream greenhouse gas emissions but is not able to disclose potential impacts to climate change from the estimated downstream greenhouse gas emissions related to mineral development and other activities. It may be difficult to discern whether global climate change is already affecting resources in the planning area (as opposed to on a global level). It is important to note that projected changes locally are likely to occur over several decades to a century. Therefore, many of the activities in the planning area associated with climate change may not be

measurably discernible within the reasonably foreseeable future. Existing climate prediction models are global or continental in scale; therefore, they are not appropriate to estimate potential impacts of climate change on the planning area. The current state of the science involves calculating potential quantities of greenhouse gases that may be added to the atmosphere from a particular activity. However, tools to analyze or predict how global or regional climate systems may be affected by a particular activity or activities within the planning area are not currently available. Assessing the impacts of greenhouse gas emissions on global climate change requires modeling on a global scale which is beyond the scope of this analysis. Potential impacts on climate change are influenced by greenhouse gas emission sources from around the globe and it is not possible to distinguish the impacts on global climate change from greenhouse gas emissions originating from the planning area.

The social cost of carbon (SCC) is an estimate of the monetized damages associated with a small increase in $CO_2$ emissions (typically one metric ton) in a particular year. This dollar figure also represents the value of damages avoided for a small emission reduction. SCC is meant to be a comprehensive estimate of climate change damages and includes changes in net agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services due to climate change. Federal agencies use the SCC to incorporate the social benefits of reducing $CO_2$ emissions into the cost-benefit analyses of certain regulatory actions (Interagency Working Group on Social Cost of Carbon 2010).

Although the SCC can be a helpful tool to assess the benefits of $CO_2$ reductions, it does not include all damages given current modeling and data limitations. The models used to develop the SCC estimates do not include all of the important physical, ecological, and economic impacts of climate change because of a lack of precise data on the nature of potential damages and because the science used in the models lags behind the most recent research. The NEPA process does not require a cost-benefit analysis or a quantitative presentation of SCC cost estimates. Without the completion of a thorough cost-benefit analysis incorporating the social benefits of energy production, the inclusion of an SCC analysis would present only part of the necessary data. Therefore, the SCC protocol was not used in this analysis. Greenhouse gas combustion emissions are quantified and compared to national and global greenhouse gas emissions above.

## Soil Resources

The CIAA used to analyze cumulative impacts on soils includes the entire planning area. Surface-disturbing activities occurring within the planning area are not expected to affect soil resources outside the planning area. However, watershed impacts (sediment delivery to stream systems, sedimentation, changes in frequency, duration, and volume runoff) could extend beyond the planning area.

Cumulative impacts on soils would result from all surface-disturbing activities, removal of vegetation cover, soil compaction, and the associated accelerated erosion. Mineral development activities, including oil and gas, coal, and other minerals, and related construction of roads, pipelines, and well pads would be the primary cause of such disturbances; although activities such as utility corridor and wind energy development would also contribute cumulatively to localized impacts on soils. Vegetation treatments and large range improvements, including prescribed fire, have and would continue to affect soils resources locally, but the actions would increase vegetation cover and soil health over the long term. All forms of recreational activities, particularly OHV use, can increase potential for erosion, sedimentation, gully creation, biologic soil crust damage, and riparian and upland vegetation damage. Grazing of wild horses and livestock could affect soil resources in some areas where animals congregate, increasing soil loss, erosion, or soil compaction in these areas. However, the significance of impacts varies with the nature and degree of disturbance as well as site specific environmental conditions.

The implementation of the BLM's mitigation guidelines, restrictions on surface use, continued implementation of land health standards, and monitoring efforts would provide protection to soils on federal lands and lands with federal subsurface minerals, which would help reduce cumulative effects.

The greatest surface disturbing activities could occur under Alternative C, followed by Alternatives A, D, and the Proposed RMP and Alternative B. Alternative B would have the most restrictions on surface disturbing activities among the action alternatives. Cumulative impacts on soil resources would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP with Alternative B being the lowest.

## Watershed and Water Quality

The CIAA boundary for watershed resources and water quality includes watersheds that intersect the planning area (Map 3-1). While surface-disturbing activities within the planning area are not expected to affect watershed resources and water quality outside of the planning area, watershed impacts beyond the planning area are dependent on hydrograph alteration and the quality and quantity of water flowing from the planning area.

Degradation of the water resource can be a rapid process, whereas recovery is often much slower. The cumulative impacts on watersheds and water quality are dependent primarily on the health of the vegetative community, the amount of surface disturbance, the amount of pollutants, and the degree to which groundwater quality and quantity are degraded through human activity.

Cumulative impacts to water resources would occur as a result of surface disturbing activities from mineral and energy development, vehicle use, recreation, vegetation treatments, livestock grazing, and wildfire. These activities cause surface disturbances by removing vegetation cover, displacing and compacting soils, and altering soil structure and chemistry. The result is exposed surfaces that increase the potential for runoff and erosion, which delivers sediment and contaminants to nearby waterways. Sedimentation in waterways can cause changes in water chemistry as well as geomorphic adjustments that could have negative effects on stream function.

Accidental or direct inputs of nutrients, chemicals, or other pollutants may occur during development activities, recreation and vehicle use, wildfire, vegetation treatments, or from livestock or other grazing animals. Cumulative impacts from nutrients, chemicals, or other pollutants entering waterways could result in degraded or impaired water quality, including eutrophication of smaller streams or canals.

Best management practices (BMP), reclamation efforts, and monitoring of environmental conditions can minimize the impacts of development and the resulting disturbance to the hydrologic cycle, but they are not completely effective. Therefore, the greater the level of disturbance, through whatever source and means, to the vegetation, the land surface, and subsurface structure, the greater the disruption to the water resource.

The greatest surface disturbing activities could occur under Alternative C, followed by Alternatives A, D and Alternative B. Alternative B would have the most restrictions on surface disturbing activities. The Proposed RMP would generally result in similar impacts from surface disturbing activities on water resources as Alternatives B and D. Cumulative impacts to watersheds and water quality would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP, with Alternative B being the lowest.

## Vegetative Communities

The CIAA used to analyze cumulative impacts on vegetation extends outside the planning area, following fourth-order watershed (eight-digit hydrologic unit code [HUC]) boundaries (Map 3-1). The CIAA is composed of fourth-order watersheds that completely or partially overlap the planning area. Fourth-order watersheds were used as the basic unit of analysis because the scope of cumulative influence would be at the watershed scale and is not expected to extend beyond this scale.

Cumulative effects on vegetation within the CIAA would result primarily from surface-disturbing activities that directly remove vegetation, such as mineral development and associated infrastructure, road and ROW development, rangeland improvements, and dispersed recreation. This would also indirectly affect vegetation by reducing the forage base, thereby increasing wildlife and livestock grazing on existing vegetation resources. The displacement of wildlife associated with surface-disturbing and other disruptive activities would also serve to increase grazing on non-disturbed vegetation resources. Surface disturbance would increase the proliferation of noxious and invasive weeds, which would increase the need for weed-controlling activities. Vegetation treatments would cause short-term impacts on vegetation by decreasing vegetation production and increasing establishment of early successional species. Long-term effects could include increased production and diversity of vegetation communities.

Oil and gas development would cause the greatest amount of surface disturbance through construction of well pads, roads, pipelines, and other facilities. Cumulative impacts would likely be greater where mineral development is more intense, and on state and private lands because of greater protections afforded to natural resources on public lands compared to state and private lands.

The degree of impact on vegetation communities would depend on the timing of activities and whether the amount of activity within the CIAA outpaces successful reclamation and revegetation efforts in disturbed areas. The implementation of the BLM's mitigation guidelines, BMPs, and restrictions on surface use would help to reduce overall effects. However, given the level of anticipated mineral development and that most of the native shrub communities (e.g., sagebrush) require in excess of 20 years to reestablish to pre-disturbance conditions, surface disturbance impacts are expected under all alternatives.

The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts on vegetation resources would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP with Alternative B being the lowest.

## Wildlife and Fisheries

The CIAAs used to analyze potential impacts on wildlife and fisheries vary by species. The CIAAs for pronghorn, mule deer, elk, and moose comprise the HMAs (for each species) that intersect the planning area (Map 3-3). The CIAA for all other wildlife comprises the planning area. The CIAA for fisheries covers the same area as the CIAA for water quality and watershed resources. It extends outside the planning area, following fourth-order watershed (eight-digit HUC) boundaries (Map 3-1).

Cumulative effects on wildlife and fisheries within the CIAAs would result primarily from surface-disturbing and other disruptive activities such as mineral and energy development and associated infrastructure, geophysical exploration, urban expansion and subdivision of private lands, ROWs, rangeland improvements, fences of all kinds, vegetation treatments, and dispersed recreation. These activities could result in short-term and long-term habitat fragmentation and animal displacement. Habitats could become unavailable to wildlife because of human disturbance factors (e.g., traffic, machinery, noise, livestock grazing activities) during sensitive time periods such as winter, birthing, nesting, and early rearing of young. Loss of vegetation from development activities would degrade habitat and increase forage competition among grazing animals. Livestock grazing practices could further increase cumulative impacts through direct competition for forage, water, and space, and by limiting the ability to manage vegetation for fish and wildlife needs. These impacts would also reduce the capability to maintain current population objectives.

Oil and gas development would cause the greatest amount of surface disturbance through construction of well pads, roads, pipelines, and other facilities. Reclamation and mitigation efforts would reduce impacts on wildlife habitat and fisheries; however, construction and maintenance of roads and well pads and the presence of humans would result in long-term or permanent impacts. Cumulative impacts would likely be

greater where mineral development is more intense, in areas where development overlaps with crucial and winter wildlife ranges, and on state and private lands because of the lack of protections afforded to natural resources in these areas. As development expands throughout southwestern Wyoming, the ability of big game and other wildlife species to disperse into habitats outside of the planning area could become limited. This may create isolated populations in areas where habitats remain intact. The degree of impact would depend on the timing of development activities and whether the amount of activity within each CIAA outpaces the successful reclamation and revegetation efforts in disturbed areas. Because of this pace of development (whether federal mineral, commercial, or private residence), more pressure would be put on habitats outside of the development (likely private lands) as wildlife is displaced from the disturbances.

Crucial winter range and birthing habitat are important areas to the viability of big game. Persistent disturbance in sensitive habitats would shift the areas of use and weaken the tendency of the animals to return to the disturbed area. If animals return to disturbed habitat, populations could be lower and use of the habitat could be unpredictable. Mineral development activities would likely cause displacement of animals and selection of alternative habitats and would likely inhibit big game movement between winter ranges and birthing areas. The displacement of big game, and specifically mule deer, from high-use to low-use areas has the potential to influence survival and reproduction (Sawyer et al. 2006). Should migration be disrupted and key habitats continue to be degraded over a short period of time, it is likely that long-term displacement of big game from these habitats would occur.

The health of fisheries within the CIAA is directly related to the overall health and functional capabilities of riparian resources, which are a reflection of watershed health. It is assumed that any substantial unmitigated disturbances to the soils or changes in vegetative cover would have an adverse effect on watershed health and water quality and would therefore have an adverse effect on associated fisheries. The degree of impact attributed to any one disturbance or series of disturbances is influenced by location within the watershed, time and degree of disturbance, existing vegetation, and precipitation. Surface disturbances would result in accelerated erosion and runoff, increasing stream flow and sediment and nutrient loads to local channels. Sedimentation of a stream channel could impact fisheries by reducing habitat complexity, which results in a lower diversity of prey organisms. Increased turbidity would result from increased sediment input, which decreases light penetration and inhibits visual predation by fish. Surface disturbance near streams that results in substantial removal of riparian vegetation could increase current velocity, which puts additional strain on fish and reduces nutrient cycling. In addition to increased sediment input, stream bank disturbance could impact fisheries by creating bank instability, which would alter flow regimes and destroy pool-riffle formations necessary for fish survival. Increased nutrient loading of streams can impact fisheries by increasing primary production above natural levels, which degrades habitat and decreases oxygen levels. Surface disturbance and timing restrictions and stipulations afforded all streams and riparian areas within the planning area would help to reduce impacts. Conventional oil and gas and CBNG development activities would be the primary cause of surface disturbance and related impacts on fisheries on public lands in the RSFO.

Because stream systems within the planning area are not entirely under BLM management and cross onto state and private ownerships, the connectivity of these streams is sometimes incomplete. Thus, the metapopulations for fish species are also disconnected. Often this occurs because of irrigation diversions or other such barriers that do not allow for migration between smaller headwater streams via the larger streams and rivers. Population objectives sometimes reflect these discontinuities, and re-establishment of connectivity is usually a major goal. Without this connectivity and with a continuation of additional fragmentation within the entire CIAA, populations of many fish species would continue to be threatened.

Impacts on wildlife would likely occur under all alternatives because of the loss of vital, high-value habitats and corridors between these habitats. The success of disturbed land reclamation, both short and long term, would determine the duration of impacts. The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities causing the least contribution to cumulative impacts to

wildlife and fisheries. Cumulative impacts on wildlife and fisheries habitat would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP with Alternative B being the lowest.

## Special Status Species

The CIAA used to analyze potential impacts on Special Status Species vary by species and the habitat they inhabit or use for migration (for wildlife) both inside and adjacent to the planning area. The CIAA for special status fisheries covers the same area as the CIAA for water quality and watershed resources. It extends outside the planning area, following fourth-order watershed (eight-digit HUC) boundaries (Map 3-1).

Cumulative effects on Special Status Species plants and animals within the CIAA would result primarily from surface-disturbing and other disruptive activities such as mineral development and associated infrastructure, wind energy development, fences of all kinds, ROW and road development, prescribed and wildfire, introduction and spread of non-native, invasive plant species; urban expansion and subdivision of private lands, and dispersed recreation. These activities could result in short-term and long-term habitat loss, fragmentation, and animal displacement. Habitats could become unavailable to wildlife because of human disturbance factors (e.g., traffic, noise, energy development) during sensitive time periods such as winter, birthing, nesting, and early rearing of young. Loss of vegetation from development activities would degrade habitat and increase competition for food resources among special status and other wildlife species. Potential habitat for special status plants could be lost during development or other surface disturbing activities.

Depending on the extent and timing of activity (e.g., hiking, camping, or recreation), over time, casual use could cause slight to significant incremental changes to habitats that may be occupied by Special Status Species or provide necessary habitat components. Impacts could include trampling of special status plant species or damage to Special Status Species habitats, introducing noise or dust that can disturb species during sensitive periods, introducing invasive weeds or disease, degrading Special Status Species habitat, and causing direct or stress-related mortality. Stationary species such as plants would be particularly susceptible to cumulative effects from mineral development, recreation, wildfire, and livestock grazing. With the eventual increases of casual use resulting from increased populations or popularity of the area for recreation activity, incremental impacts could become significant for some species.

Permitted activities result in ground disturbance that could accumulate to affect large expanses of habitat. Surface disturbances could remove or degrade native vegetation, fragment habitats, introduce invasive weeds, displace species, cause abandonment of nesting and breeding areas, reduce availability of key habitat components, and reduce reproduction and survivability. However, all permitted activities, including reasonably foreseeable well development on federal minerals, proposed pipelines traversing the planning area, and mineral claims, would require BLM consultation to ensure projects would not adversely affect Special Status Species at a cumulative level. Additionally, BLM policy requires other Special Status Species of non-federal status (such as BLM sensitive and state-listed species) to receive the same protection and consideration as federally protected species.

Oil and gas development would cause the greatest amount of surface disturbance through construction of well pads, roads, pipelines, and other facilities. Reclamation and mitigation efforts would reduce impacts on special status wildlife; however, construction and maintenance of roads and well pads and the presence of humans would result in long-term or permanent impacts. Special Status Species, under the Endangered Species Act (ESA) and Wyoming BLM sensitive species guidance, would be protected on federal lands by site-specific mitigation, including exclusion or avoidance of all surface-disturbing activities; however, protection of non-federally listed species on private and state lands may not occur, resulting in potentially significant impacts on these species. The degree of impact would depend on the timing of development activities and whether the amount of activity outpaces the successful reclamation and revegetation efforts in disturbed areas. Because of this pace of development (whether federal mineral, commercial, or private

residence), more pressure would be put on habitats outside of the development (likely private lands) as wildlife is displaced from the disturbances.

Surface disturbance could increase the proliferation of noxious and invasive weeds, which could increase the need for weed-controlling activities. Vegetation treatments could cause short-term impacts on vegetation by decreasing vegetation production and increasing establishment of early successional species. Long-term effects could include increased production and diversity of vegetation communities. Untreated weeds on non-BLM lands that spread to adjacent BLM-administered lands would result in degradation of native habitat. Weed treatments on non-BLM lands which are intermingled with BLM-administered lands are the responsibility of the private landowner or lessee. Coordination with non-BLM landowners in the development and application of weed treatments would assure that weeds are identified and treated on all ownerships to maintain productivity of native vegetation, which comprises important wildlife habitats. Special status plant species, under the ESA and Wyoming BLM sensitive species guidance, would be protected on federal lands by site-specific mitigation, including exclusion or avoidance of all surface-disturbing activities; however, protection of these species on private and state lands may not occur, resulting in potentially significant impacts on these species.

The degree of impact on vegetation communities (habitat for special status wildlife) would depend on the timing of activities and whether the amount of activity within the CIAA outpaces successful reclamation and revegetation efforts in disturbed areas. The implementation of BLM mitigation guidelines, BMPs, and restrictions on surface use would help to reduce overall effects. However, given the level of anticipated mineral development and that most of the native shrub communities (e.g., sagebrush) require in excess of 20 years to reestablish to pre-disturbance conditions.

The greatest surface disturbing activities could occur under Alternative C, and the least would occur under Alternative B, then with Alternatives A, D, and the Proposed RMP ranging in the middle of these two alternatives. Cumulative impacts on Special Status Species habitat would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP with Alternative B being the lowest.

## Wild Horses

The CIAA used to analyze cumulative impacts on wild horses includes the active HMAs within the planning area. Cumulative impacts would occur from a combination of activities and uses occurring within the HMAs. Past, present, and reasonably foreseeable future actions and conditions within the CIAA that have affected and will likely continue to affect wild horses are wildfires, surface-disturbing activities, the presence and abundance of grazing wildlife and livestock, increased recreational demands, and protections for sensitive resources.

Potential cumulative impacts on wild horses within the HMAs would result from a combination of activities and land uses occurring within the area. Such impacts would result primarily from surface-disturbing activities, human disturbance, and the presence of livestock that compete with wild horses for forage resources. These activities result in wild horse displacement and direct removal and indirect degradation of forage. Wild horses would directly benefit from actions to increase forage opportunities, to improve range conditions, to maintain or improve water sources, and to eliminate barriers to movement. Restrictions and prohibitions on surface disturbing activities, as well as reclamation efforts and vegetation treatments would reduce impacts on wild horses. A reduction in development and recreation activities would decrease soil disturbances and vegetation removal, increase available forage, and decrease the displacement of wild horses. Wild horses would indirectly benefit from restrictions on motorized travel or other potentials for disturbance from people and vehicles.

The greatest surface disturbing activities could occur under Alternative C, with Alternatives A and D having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts to wild horses would be highest under Alternative C, followed by Alternatives A and D, with

Alternative B being the lowest. The Proposed RMP strikes a balance of impacts described, remaining consistent with Alternative A.

## Wildland Fire Ecology and Management

The CIAA used to analyze cumulative impacts on fire management includes the entire planning area. Because of noncontinuous fuels, low historic fire incidence, and significant fuel breaks (e.g., state and county roads), management activities occurring within the planning area would not be expected to affect fire management outside of the planning area for the majority of the planning area.

Cumulative impacts on wildland fire management would occur as a result of the increased or decreased surface disturbances from development, grazing, recreation activities, and fire management occurring within the planning area. As general use, recreation, mineral development, and grazing increase as a whole throughout the planning area, potential for impacts to fire management, would increase as greater human traffic and activities would increase potential ignition sources.

With increased development and attendant infrastructure (e.g., power lines, compressors, pipelines, and fuel tanks) comes a corresponding increase in the potential for fire suppression to occur within Wildland Urban Interface (WUI) areas. Suppression activities within WUI areas can be more dangerous, time-consuming, and expensive than suppression in undeveloped areas. Particularly critical would be the extra caution required for firefighter safety within an active gas field. This increased development would also impact the fuels management activities within the oil and gas fields. Increasing the amount of oil and gas development would require more WUI/industrial interface fuels treatment projects and would tax the BLM's ability to plan, fund, and implement these projects. The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts to wildland fire management would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP with Alternative B being the lowest.

## Cultural Resources

The CIAA for cultural resources includes the entire planning area and neighboring lands with a high potential for connected resources. Potential cumulative impacts on cultural resources would result from surface-disturbing activities that cause erosion or vibration from traffic and/or machinery, soil compaction, and landscape alteration. Oil and gas development would cause the greatest amount of cumulative effects on cultural resources from construction of well pads, roads, pipelines, and diverse ancillary facilities. These development actions could result in damage to or loss of cultural resources. Direct impacts on cultural resources can occur from unanticipated subsurface discoveries (cultural resources discovered during project construction activities). Post review discoveries generally result in the irretrievable loss of some or occasionally all of the cultural resource involved. Even when salvage excavations result in the retrieval of some or a substantial amount of data, the nature of archaeological discovery during surface-disturbing activities results in the partial loss of information (e.g., spatial data, associated materials that wind up in the spoil piles). Surface-disturbing activities (e.g., mineral development, livestock grazing improvements, dispersed recreation) on private, state, and other federal lands within the CIAA would substantially increase the level of cumulative impact on cultural resources.

Surface-disturbing activities that occur in close proximity to sensitive Native American sites and some historic sites would potentially introduce visual atmospheric or audible indirect intrusions to those sites where the setting contributes to their National Register of Historic Places (NRHP) eligibility. This would result in a cumulative loss of the integrity of the setting of sensitive Native American sites and the setting of historic trails. Projects implemented on land owned by the State of Wyoming and on private surface where the BLM's cultural resource process does not apply could result in substantial cumulative effects.

Potential impacts on cultural resources would be in part mitigated by Cultural Resource Management Plan actions; implementation of federal regulatory laws, actions, and guidelines designed to protect cultural resources; and through consultation processes with the State Historic Preservation Office and Native American tribal representatives. However, it is anticipated that such measures would not prevent many impacts from occurring. Severe impacts would be likely to occur in situations in which undocumented NRHP-eligible archaeological sites are impacted but not recognized.

Activities permitted through the BLM (such as leasing of federal minerals, and mining on federal minerals) would likely disturb cultural resources. Compliance with Section 106 of the National Historic Preservation Act would be required either through the State Protocol or the Section 106 regulations at 36 CFR 800 for these activities, which would require cultural surveys and avoidance or mitigation of identified sites. This could incrementally result in the identification of more cultural resources, and an increase in information concerning cultural resources within the planning area. However, cultural resources are best interpreted when studied on a landscape level, identifying regional similarities and variations. Continuing to identify and study cultural resources through project mitigation would preserve the cultural resources, but if not done with proper consideration and foresight could result in the loss of regional cultural context. Professional research, documentation, and preservation where necessary would mitigate incremental impacts by preserving the regional context and values associated with the individual and collective sites.

The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts to cultural resources would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP, with Alternative B being the lowest.

## Paleontological Resources

The CIAA used to analyze cumulative impacts on paleontological resources includes the entire planning area. Management activities occurring within the planning area are not expected to affect paleontological resources outside of the planning area.

Potential cumulative impacts on paleontological resources would result primarily from surface-disturbing activities that cause erosion or vibration from traffic and/or machinery, soil compaction, and landscape alteration. These types of activity could result in exposure, damage, and/or destruction of paleontological resources. The policies associated with the paleontological resource management program, which require identification and mitigation of paleontological resources prior to surface-disturbing activities, would help to reduce potential impacts. Implementation of these requirements would also increase the potential for identification, recordation, and collection of paleontological resources. However, even with identification and mitigation requirements, the potential exists for damage or destruction of previously unknown paleontological resources discovered during construction. In addition, OHV use, dispersed recreation, and other surface-disturbing activities not subject to a permitting process could result in exposure, damage, or destruction of paleontological resources.

Surface-disturbing and recreational activities that occur on private and state lands would result in substantial impacts on paleontological resources because of the lack of legal protections afforded to these resources on these lands. Approximately 1,450,000 acres of state and private land occurs within the CIAA, on which activities and development are expected to cause substantial damage to or destruction of paleontological resources or result in the improper collection of scientifically important paleontological resources. The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts to paleontological resources would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP, with Alternative B being the lowest.

## Lands with Wilderness Characteristics

The CIAA used to analyze cumulative impacts on lands with wilderness characteristics includes the entire planning area. Cumulative impacts on lands with wilderness characteristics would primarily occur from human presence and surface disturbing activities associated with development, construction, and recreation activities. This would include activities related to fluid mineral well development, mining, OHV use, and construction of power lines, wind turbines, generators, substations, and other above-ground facilities. Such surface-disturbing and disruptive activities within and in the vicinity of the nine areas determined to contain wilderness characteristics would degrade those characteristics. These activities involve land clearing, grading, soil disturbance, the removal of vegetative cover, and the construction of roads, well pads and other support facilities. Such activities occurring on lands with wilderness characteristics would impact both the naturalness and opportunities for solitude and primitive recreation. Naturalness would be degraded or eliminated primarily from increases in human activity, modifications to the landscape, and visual intrusions caused by the construction of roads, well pads, development sites, and other facilities. Opportunities for solitude and primitive recreation would be reduced or eliminated by increases in noise and the presence of people, vehicles, and equipment associated with OHV use and exploration and development of mineral resources. Once mineral development activities are completed, opportunities for solitude and primitive recreation could return. However, productive wells would remain in place and would be substantially noticeable until the wells are decommissioned and disturbance is reclaimed, thereby eliminating naturalness for the life of the well. Restoration activities would reduce the loss of naturalness, especially on exploration wells that would be rehabilitated and revegetated over the short term.

As development of public, private, and state-owned lands continues, the importance of protecting lands with wilderness characteristics would increase and the values of these areas would increase as development proceeds on surrounding areas. As solitude and primitive recreation experiences become rarer, additional people would be drawn to lands with wilderness characteristics for their open space and undeveloped characteristics. The implementation of the BLM's mitigation guidelines, reclamation requirements, restrictions on surface use, rangeland guidelines, vegetation treatments, and monitoring efforts would provide protection to resource values, which would help reduce overall effects on lands with wilderness characteristics.

Cumulative impacts on lands with wilderness characteristics would be greatest under Alternative C because development activities are anticipated to be greatest under this alternative. Impacts would be the least intensive under Alternative B because of increased protections to sensitive resources and from prohibiting or limiting the amount of surface disturbance that would occur throughout the planning area. Under the Proposed RMP, most lands with wilderness characteristics fall within other management areas such as ACECs and would follow the other management direction. This could cumulatively add to impacts on lands with wilderness characteristics.

## Visual Resources

The CIAA used to analyze cumulative impacts on visual resources includes the entire planning area. Potential impacts on VRM would result primarily from surface disturbance activities that cause visual intrusions and degrade the visual quality of the CIAA. Activities related to oil and gas development, wind energy projects, pipeline projects, and communication towers would have the potential to degrade visual resources and result in inconsistencies with VRM Class objectives. Cumulative impacts would likely be greater in areas where mineral development is more intense, and near state and privately owned lands because of the BLM's lack of authority on these lands. Impacts would be lowest in areas managed for VRM Class I objectives such as wilderness study areas (WSA) and other special management areas.

Cumulative impacts on visual resources would be greatest under Alternative C because development activities are anticipated to be greatest under this alternative. Alternatives A and D and the Proposed RMP would have fewer visual impacts due to restrictions on development and surface disturbing activities.

Impacts would be the least intensive under Alternative B because of increased protections to sensitive resources and from prohibiting or limiting the amount of surface disturbance that would occur throughout the planning area.

## Minerals and Renewable Energy

The CIAA used to analyze cumulative impacts on minerals management and renewable energy development includes the entire planning area. Management activities occurring within the planning area are not expected to affect mineral resource and renewable energy development management outside of the planning area. Past, present and reasonably foreseeable future actions and conditions within the CIAA that have affected and will likely to continue to affect minerals and renewable energy are market forces, availability of resources for development, regulatory and prescriptive constraints, and reservoir/reserve depletion.

Cumulative impacts on mineral development would occur from restrictions that prohibit or restrict surface disturbance that ultimately decrease the number of oil and gas wells drilled during the planning period, as well as the acres of land open to solid mineral leasing, mineral material disposal, and the location of mining claims. Prohibiting surface disturbance would not allow for the development of solid, locatable, and saleable minerals and would prohibit the construction of some well pads, access roads, pipelines, and ancillary facilities. Offsite methods such as directional drilling would be required to access oil and gas resources. In some cases, an operator could place a well pad, access road, or production facility in a less-sensitive area and drill to the well directionally to recover reserves underlying the area prohibited from surface disturbing activities. The equipment and personnel required for directional drilling could increase the complexity of operations and slow the drilling process. Directional drilling increases the risk of drilling problems such as stuck casing and diminished well production. Prohibiting surface disturbance and applying extra lease stipulations and terms could also cause an operator to move to nearby private or state land with no such restrictions and drill wells that could lead to drainage of federal reserves and loss of federal revenue. However, the indirect and cumulative effects of consolidating infrastructure over the life of multiple oil and gas reserves could reduce the need for ancillary infrastructure over the larger region as infrastructure becomes more centralized, and less infrastructure would be necessary to deliver products downstream.

Restricting surface disturbance could lead to the relocation of well pads, access roads, pipelines, and ancillary facilities to areas with fewer restrictions. Relocation of these proposed facilities could cause temporary delays in developing oil and gas resources and other minerals and could limit mineral development activities in these areas. Oil and gas and other mineral development are expected to continue under all alternatives. Implementing Alternative C would result in the development of the greatest number of wells during the planning period. Alternative B would result in the least number wells because of surface disturbance restrictions. The Proposed RMP would result in more wells than Alternative B, but less than Alternative C.

Solid, saleable, and locatable mineral operations would continue under all alternatives. However, new development would be restricted from an increase in lands identified as unsuitable for coal leasing and closed to solid and saleable, mineral development and proposed for withdrawal for locatable mineral entry. The degree of impact would be lowest under Alternative C because of fewer land use restrictions for the protection of sensitive resources. Conversely, the implementation of increased restrictions to protect sensitive resources under Alternative B would result in the greatest level of impact on mineral development. The degree of impact under the Proposed RMP would be less than Alternative B, but more than Alternative C.

Similarly, prohibiting and restricting surface disturbing activities would limit the development of renewable energy, and could cause project proponents to relocate and/or move to nearby private or state land with no such restrictions. This could cause temporary delays in developing renewable energy. If suitable adjacent

sites are not available, renewable energy development could be prohibited. Renewable energy development is expected to continue under all alternatives. The degree of impact would be lowest under Alternative C because of fewer land use restrictions for the protection of sensitive resources. Conversely, the implementation of increased restrictions to protect sensitive resources under Alternative B would result in the greatest level of impact on renewable energy development. The Proposed RMP would have fewer cumulative impacts to renewable energy than Alternative B, but more than Alternative C.

## Livestock Grazing Management

The CIAA used to analyze cumulative impacts on livestock grazing includes all grazing allotments within the planning area (Map 3-11). Livestock are managed within the boundaries of these allotments and therefore could be affected by activities occurring in these areas.

Potential cumulative impacts on livestock grazing operations would result from a combination of activities and land uses occurring within the CIAA. Such impacts would result primarily from surface-disturbing activities, human disturbance, and the presence of wildlife that compete with livestock for rangeland resources. These activities result in livestock displacement, direct removal and indirect degradation of forage, and direct and indirect costs to the grazing permittee. Reclamation efforts and vegetation treatments would reduce impacts on livestock grazing; however, construction of roads and well pads and the constant presence of humans and wildlife would result in long-term impacts.

An increase in human population would create additional demands for recreational use of the public lands used for grazing and could result in livestock displacement, increases in noxious weed infestation, and costs to operators and public land management areas. Oil and gas development activities and related construction of roads, pipelines, and well pads would lead to a cumulative increase in soil disturbance, vegetation removal, noxious and invasive weed proliferation, and livestock displacement. Impacts would be greater in areas with high-density mineral development projects. These impacts could result in substantial rangeland degradation and thereby jeopardize compliance with the Wyoming Standards for Healthy Rangelands (USDI, BLM 1997) on some allotments. The implementation of the BLM's mitigation guidelines, reclamation requirements, restrictions on surface use, rangeland guidelines, vegetation treatments, and monitoring efforts would provide protection to forage resources on federal lands, which would help reduce overall effects on livestock grazing resources and operations.

The promotion of natural fire in the ecosystem, along with vegetation treatments to improve habitats, will place more of the vegetation communities in the lower seral stage. Generally, this improves and increases the forage resource, and from the standpoint of the CIAA, could offset forage losses that may occur from large-scale industrial development in some areas.

The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts to livestock grazing management would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP, with Alternative B being the lowest. The Proposed RMP strikes a balance of the impacts identified, remaining consistent with Alternative D.

## Recreation

The CIAA used to analyze cumulative impacts on recreation resources includes the planning area, and big game herd units that intersect the planning area. Wildlife populations are managed within these boundaries and therefore could be impacted by activities occurring in these areas. Because hunting and wildlife viewing are recreation activities within the planning area, any activities that affect game populations would in turn impact recreation activities and reduce recreation benefits.

Cumulative impacts on recreation would potentially occur from a mixture of land uses that results in conflicts for unconfined, dispersed recreational opportunities. Impacts are a result of both increased recreational activity occurring within and outside of the planning area and user conflicts generated from planned actions. Surface-disturbing activities (primarily oil and gas development) would alter recreational settings and degrade some recreational experiences through increased visual intrusions, noise levels, traffic volumes, and concerns for public health and safety. In areas where development occurs, hunting opportunities would be diminished because of the displacement or loss of game animals. This would further increase cumulative effects to recreation by degrading a major recreation activity. Seasonal restrictions designed to protect sensitive resources could reduce recreational opportunities for some users by limiting access to certain areas; however, restrictions could also enhance the experience of other users who desire solitude, wildlife viewing, and primitive recreation opportunities. Cumulative impacts would likely be greater in all portions of the CIAA where mineral development is more intense, and near state and private lands because of the lack of protections afforded to natural resources in these areas. The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities; however, Alternative B would also remove all SRMAs, which would reduce the number of designated and developed recreation sites and the availability of recreation facilities for the public. Cumulative impacts to recreation would be highest under Alternative C, followed by Alternatives A and D, with Alternative B having the lowest impact on back and middle country recreation experiences. The Proposed RMP strikes a balance between the impacts identified, providing a range of recreation opportunities from developed recreation sites to remote wilderness experiences.

## Forestry and Woodlands

The CIAA used to analyze cumulative impacts on forest management extends outside the planning area, following fourth-order watershed (eight-digit HUC) boundaries (Map 3-1). The CIAA is composed of fourth-order watersheds that completely or partially overlap the planning area. The fourth-order watersheds were used as the basic unit of analysis because the scope of cumulative influence would be at the watershed scale and is not expected to extend beyond this scale.

Some of the cumulative impacts on forest management would result from surface-disturbing actions that remove forest cover. Because mineral development activities would take place mainly outside of forested areas, cumulative impacts would be minimal. However, woodland forest communities occur in areas that have a higher potential for oil and gas development, thus creating the potential for impacts on these areas. Impacts would include direct removal of forest cover to develop well sites, roads, and surface infrastructure. These areas would be taken out of timber harvest production for the life of the well or mining operations. Mineral resource development activity can also benefit forest management by providing opportunities for increased accessibility to potential harvest or management areas.

Management actions designed to protect sensitive resources would, in some cases, result in the exclusion of forestland from harvesting of forest products or other mechanical forest health treatments, limiting options available for forest stand restoration.

The greatest surface disturbing activities could occur under Alternative C, with Alternatives A, D, and the Proposed RMP having fewer, and Alternative B would have the most restrictions on surface disturbing activities. Cumulative impacts to forestry and woodland resources would be highest under Alternative C, followed by Alternatives A, D, and the Proposed RMP with Alternative B being the lowest.

## Lands and Realty

The CIAA used to analyze cumulative impacts on the uses administered by the lands and realty program includes the entire planning area.

Impacts on lands and realty management would result from actions that affect the location and design of proposed ROWs. These actions are primarily the result of implementing surface use restrictions (e.g., VRM designations, land use closures, NSO stipulations) and management prescriptions designed to protect natural resources. These actions would limit or restrict ROW project design and where ROWs would be permitted. The greatest impacts would occur in areas managed to meet VRM Class II objectives, as avoidance or exclusion areas for ROWs, and in areas managed with NSO stipulations.

The actions and activities considered in this analysis, including land use restrictions for the preservation of sensitive resources, would not prevent the BLM from accommodating major utility and transportation corridors. The degree of impact would be lowest under Alternative C because of fewer land use restrictions for the protection of sensitive resources. Conversely, the implementation of increased restrictions to protect sensitive resources under Alternative B would result in the greatest level of impact on lands and realty.

Under the Proposed RMP, cumulative impacts on lands and realty management would be greater than Alternatives A, C, and D, but less than Alternative B.

## Special Designations

The CIAA used to analyze cumulative impacts on special designations includes the entire planning area. Because management associated with special designations are intended to protect the resource values and uses for which they have been identified, it is not anticipated that any additional activities outside of the planning area would have a cumulative impact on special designations. Cumulative impacts on special designations would primarily occur from human presence and surface disturbing activities associated with development, construction and recreation activities. This would include activities related to fluid mineral well development, mining, OHV use, and construction of power lines, wind turbines, generators, substations, and other above-ground facilities.

Many of the resource values for which special designation areas were originally designated would be directly or indirectly impacted by surface disturbing activities. Examples of resource values that would be impacted by surface disturbance include cultural and paleontology, wildlife, vegetation, soils and watersheds, visual resources, and primitive and semi-primitive recreational opportunities. Increased levels of development and other surface disturbing activities could result in the loss or degradation of undiscovered cultural and paleontological resources. Modifications to the landscape caused by surface disturbance could impact vegetation communities and increase soil erosion and the overall integrity of the landscape which could also have a direct impact on wildlife habitat. Additionally, increased levels of surface disturbance and the associated increase use of heavy equipment, presence of humans, and increase noise levels could result in increased stress levels to wildlife and on their movement and migration patterns and natural habitat. Impacts to the integrity of the landscape caused from surface disturbance would result in the degradation of visual qualities and opportunities for primitive and semi-primitive recreational experiences.

As development of public, private, and state-owned lands continues, the importance of protecting special designations would increase and the values of these areas would increase as development proceeds on surrounding areas. As solitude and primitive recreation experiences become rarer, additional people would be drawn to the WSAs and other special designations for their open space and undeveloped characteristics. The implementation of the BLM's mitigation guidelines, reclamation requirements, restrictions on surface use, rangeland guidelines, vegetation treatments, and monitoring efforts would provide protection to resource values, which would help reduce overall effects on special designations.

Cumulative impacts on ACEC designations would be greatest under Alternative C because it does not propose any ACECs and because development activities are anticipated to be greatest under this alternative. Impacts would be the least intensive under Alternative B with 16 ACECs proposed and because of increased protections to sensitive resources and from prohibiting or limiting the amount of surface disturbance that

would occur throughout the planning area. The Proposed RMP would contribute to the next least intensive cumulative impacts to ACEC designations because it includes 12 ACECs that would protect their relevant and important values, which is more than Alternatives A, D, and C.

## Socioeconomics

The CIAA used to analyze cumulative impacts on socioeconomics extends beyond the planning area, to include the entire socioeconomic study area consisting of Fremont, Lincoln, Sublette, Sweetwater, and Uinta counties. Section 4.23 describes the socioeconomic impacts of BLM actions on the socioeconomic study area. These impacts take place in the context of social and economic impacts from resource uses on other lands in the socioeconomic study area, social and economic impacts driven by other activities in the socioeconomic study area (e.g., public infrastructure development), and broader social and economic trends (e.g., in- and out-migration, changes in social values, trends in energy prices, etc.). Thus, the socioeconomic impacts from BLM decisions in this planning action are just a part of the many contributing factors to the social and economic changes taking place in the socioeconomic study area.

Oil and gas activity development activity is expected to occur on both public and private lands throughout southwestern Wyoming during the planning period. BLM-administered land is just one contributor, albeit a large one, to the overall level of development. The intensity of development in the oil and gas sector reflects both public policy and market forces. Even though leasing and management of oil and gas resources are affected by BLM decisions, the timing and pace of development reflects market forces established by various factors beyond the management decisions of the BLM. These include national and international energy demand and prices, production factors within the CIAA, and business strategies of operators. These factors affect development on both BLM and non-BLM resources. As a result, it is difficult to estimate the pace of development, which means the actual cumulative impacts might vary if the rate of development changes during the study period.

During the planning period, it is likely that communities within the socioeconomic study area will be affected by the oil and gas development "boom and bust" cycle and the intensity or magnitude of this cycle would be a function of pace. It is likely that individuals from outside the area would fill many of the jobs created during the boom portion of the cycle. Temporary and permanent population increases in certain parts of the study area would be directly attributable to oil and gas development across BLM and non-BLM mineral resources. Moreover, it is anticipated that this phenomenon would likely cause hardships for areas that must improve or expand infrastructure and public services to accommodate increases in population. However, these hardships would be offset to some extent by the tax revenues generated by oil and gas activity. The larger impacted communities may be in a slightly better position to absorb increases in population relative to the smaller ones. This is probably also true during any downturns in oil and gas economic activities. A larger community typically has a more diverse economic base that is less dependent on a single industry. Population changes driven by total levels of oil and gas development may also cause changes in local social cohesion, customs, and culture. This would also vary by community, because some areas have a long-standing history of growth driven by minerals development, and some do not.

Levels of coal and trona production in the RSFO over the planning period will be determined largely by market conditions, including commodity prices and costs of production. It is possible that coal production and attendant economic activity could decline over time due to price competition from other energy sources or broader (non-BLM) regulatory factors. None of the alternatives or the Proposed RMP would impact coal and trona production in ways that significantly exacerbate or counter the larger forces acting on these industries.

Wind energy development in the socioeconomic study area is driven by favorable wind resources and demand for renewable energy. This market demand comes from population centers well beyond Wyoming's borders, and is likely to continue or increase during the planning period. Large-scale wind energy projects on non-BLM administered land in the socioeconomic study area may be proposed and built

during the planning period. A combination of large projects on both BLM and non-BLM land would create significant economic activity in the socioeconomic study area, but could also exacerbate pressures on the local economy, public services, and social systems from influxes of construction workers. This would be particularly true if this activity were to coincide with a "boom" period in oil and gas development, which is conceivable given that demand for both renewable energy and oil and gas development increase when the price of energy increases. It is also worth noting that the high acreage of ROW exclusion areas under Alternative B (2,480,876 acres versus 394,940 acres under Alternative A) could have a dampening effect on projects on both BLM and non-BLM land by making development of power transmission lines from wind development areas difficult. As the Proposed RMP is a combination of Alternatives D and B, some dampening effect of Alternative B would be expected to occur under the Proposed RMP.

Some changes to livestock grazing practices on BLM-administered lands would occur under any of the alternatives or the Proposed RMP. It is unlikely that any of the alternatives or the Proposed RMP would result in large changes in the number of animal unit months (AUM) available for livestock grazing. Marginal changes in available AUMs can probably be accommodated or made up for on other lands in the socioeconomic study area. However, broader factors in the region (e.g. changing availability and cost of private grazing lands) and market forces create economic stress for some livestock grazing operators. If changes in AUM availability disproportionately affect some operators, those changes in combination with other economic pressures could impact the viability of those particular operations.

Many recreation attractions besides BLM-administered land generate economic activity in the socioeconomic study area. Other attractions include Flaming Gorge National Recreation Area, National Forest lands, the Seedskadee National Wildlife Refuge, Scenic and Historic Byways, and state parks, wildlife habitat management areas, and public access areas. Management of all these areas, along with management of BLM-administered land, potentially affects the recreation economy. However, broader economic forces are typically much more important drivers than management actions, excepting outright closures of sites. Visitation levels are affected by economic factors such as gasoline prices (which affects local and regional travel), airfares and the value of the dollar (which affect foreign travel), and general consumer confidence in the economy, which affects willingness to spend money on travel and recreational activities. Nonetheless, cumulative loss of scenic open space due to oil and gas development on BLM-administered land and other public and private lands across the socioeconomic study area could impact some recreation-based economic activity by causing some people to move their recreation activities to other, less-impacted areas.

## T.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

NEPA §102(2)C requires a discussion of any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. An irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time (e.g., extraction of any locatable mineral ore or fluid mineral). An irreversible commitment of a resource is one that cannot be reversed (e.g., the extinction of a species or disturbance to protected cultural resources).

Implementation of the Rock Springs RMP would allow for surface disturbing activities, including mineral and energy development and infrastructure development that would result in irreversible or irretrievable commitments of resources. These surface disturbing activities would result in long-term or permanent alterations to soil, removal of vegetation cover, fragmentation of wildlife habitat, and damage to cultural and paleontological resources. Wildlife dependent on the affected habitats may be displaced and populations may be reduced as the carrying capacity of the range is reduced. Increases in sediment, salinity, and nonpoint source pollution that result from these activities could result in degradation of water quality and an irretrievable loss of water utility, aquatic habitats, and aquatic-dependent species. However, management prescriptions and mitigation prescribed under the alternatives are intended to reduce the

magnitude of these impacts by preventing habitat loss in some areas and reclaiming soil, vegetation, and habitat resources. Although reclamation of some disturbed sites would occur, the level of habitat diversity and quality that existed prior to disturbance would likely not be achieved for several decades and may never return to pre-disturbance conditions. This would likely result in permanent reductions in wildlife populations and impairment of water quality and vegetation communities in some areas.

An irretrievable commitment of nonrenewable fossil fuels (i.e., oil and gas) would occur from the development of wells and subsequent extraction of fluid minerals over the next 20 years. The number of additional wells proposed for development within the planning area ranges from fewer than baseline to 146 depending on the alternative.

## T.3 UNAVOIDABLE ADVERSE IMPACTS

NEPA §102(2)C requires disclosure of any adverse environmental effects that cannot be avoided should the RMP be implemented. Unavoidable adverse impacts are those that remain following the implementation of mitigation measures or impacts for which there are no mitigation measures. Some unavoidable adverse impacts would occur as a result of implementing the Rock Springs RMP.

Continuing to allow surface disturbing activities would result in unavoidable adverse impacts. Although these impacts would be mitigated to the extent possible, unavoidable damage is inevitable. Permanent conversion of vegetation resources to other uses, such as mineral and energy development reduces the quantity and quality of vegetation resources. Energy and mineral development activities on public lands create long-term visual intrusions, soil erosion and compaction, habitat degradation and fragmentation, and water quality impairment. Portions of the planning area with more intense recreational use would continue to experience scarring, increased soil erosion, loss of vegetation, and degradation of water and wildlife resources. Although these impacts are unavoidable, they are generally concentrated in areas that are already disturbed, which limits the spread of impacts on more remote or less frequented areas.

Development of the additional oil and gas wells would cause air quality related impacts. Under all alternatives, production and release into the atmosphere of HAPs, volatile organic compounds (VOC), CO, $SO_2$, $NO_X$, and $PM_{10}$ would increase. However, it is not anticipated that the concentrations of these substances would increase to the point where an exceedance of the NAAQS or WAAQS would occur. Although it is not anticipated that the concentrations of these substances would increase to the point where an exceedance of the NAAQS or WAAQS would occur, the increases over the low historical background concentrations would be noticeable and/or visible to the average person. Impacts would persist as long as development continued, unless improved methods for controlling and/or treating emissions were developed. These impacts would be apparent throughout the planning area and potentially throughout the CIAA for air quality.

Because large portions of the crucial big game habitats coincide with leased areas of oil and gas potential, impacts on wildlife habitat would be unavoidable. Although oil and gas well sites and their associated infrastructure would be mitigated to the extent possible (Appendix B) and BMPs would be employed (Appendix A), long-term and possibly permanent habitat degradation and displacement of wildlife populations would be unavoidable. In addition, competition is anticipated for forage resources among wildlife and livestock. The extent of these impacts would vary by location of development activities, season, and drought cycle.

Inadvertent damage and/or destruction of cultural and paleontological resources from increased visitation and surface-disturbing activities would be unavoidable. Although mitigation measures would include identification and mitigation of resources prior to surface disturbing activities, some unanticipated discoveries of unknown cultural and paleontological resources could occur. The number of sites anticipated to be inadvertently damaged is unknown.

Conflicts between user types such as recreationists who seek more primitive types of recreation and motorized users who share those recreational areas are unavoidable adverse impacts. As recreation demand increases, recreational use would disperse to other areas of the planning area, which could create conflicts with other existing uses of those areas. Recreation use would be displaced from areas of intense mineral development, which will increase the extent and frequency of conflict between these incompatible user groups in other areas.

Numerous land use restrictions imposed throughout the planning area to protect sensitive resources and other important values would impact the ability of operators, individuals, and groups to use the public lands without limitations and result in forgone opportunities to use resources within the planning area. Although attempts would be made to minimize these impacts by limiting the level of protection necessary to accomplish management objectives and by providing alternative use areas for impacted activities, unavoidable adverse impacts would occur.

## T.4 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

NEPA §102(C) requires discussion of the relationship between local, short-term uses of the human environment and the maintenance and enhancement of long-term productivity of resources.

Any use of the natural resources within the planning area is likely to adversely impact long-term productivity of these natural resources. The short-term uses that would result in the greatest impact on long-term productivity include mineral and energy development, dispersed recreation, forest harvest, livestock grazing, and infrastructure development. These uses result in surface-disturbing and other disruptive activities that remove vegetation, increase soil erosion and compaction, create visual intrusions and landscape alterations, increase noise, impair water quality, and degrade and fragment wildlife habitat. Although management actions, BMPs, surface use restrictions, and lease stipulations are intended to minimize the effect of short-term uses, some impact on long-term productivity of resources would occur regardless of management approach. Given this situation, the BLM will strive to achieve the most effective and practicable balance between short-term uses and long-term productivity through science-based and flexible management, application of mitigation measures and BMPs, monitoring, continuous evaluation of current management policies and practices, and revision of management prescriptions where necessary and feasible.

## T.5 REFERENCES

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# APPENDIX U—COMPARATIVE ANALYSIS OF IMPACTS FROM ACTION ALTERNATIVES

Chapter 4 compares and summarizes the impacts of the actions proposed under each alternative. Impact descriptions that may occur as a result of management activities were primarily described under Alternative A in Chapter 4 and were referenced below for the other alternatives. A detailed discussion of the environmental consequences of the actions proposed under each action alternative is presented below and supports the summary of impacts in Chapter 4. The numbering of resources corresponds to the resource numbering in Chapter 4 to easily crosswalk the analyses.

## 4.3 AIR QUALITY

### 4.3.1 Summary of Impacts

The potential for BLM actions to contribute to future significant adverse impacts on air quality was analyzed in the context of existing air quality conditions within the planning area and predicted future growth in emission generating activities. Air pollutant emissions from future potential actions were estimated for several BLM management actions and activities likely to occur under each alternative that have the potential to generate quantifiable emissions of regulated air pollutants. The estimated emissions were compiled in an emissions inventory. Emissions calculations, assumptions, and methods are included in Appendix P, Air Quality Technical Support Document. Total estimated emissions and predicted increases in emissions were analyzed to develop air resource management goals, objectives, and actions that would be effective in minimizing future impacts on air quality. The resulting adaptive management strategy for the Rock Springs planning area is included in Appendix Q, Air Quality Adaptive Management Strategy.

Emissions were estimated for four criteria pollutants, volatile organic compounds (VOC), hazardous air pollutants (HAP), and greenhouse gases (GHG) for the Rock Springs Field Office (RSFO). Emissions were also estimated for three future years, a short-term year (year 1), a mid-term year (year 10) and a long-term year (year 20), as the basis to evaluate differences in management actions among alternatives and potential increases in emissions over the life of the plan. Potential emissions were also estimated for reasonably foreseeable future cumulative actions within the planning area and are discussed further in Appendix T. The following air pollutants were identified as being pollutants that could potentially be emitted by management actions and activities authorized, permitted, allowed, or performed under this Resource Management Plan (RMP). Emissions of each of these pollutants were estimated for each identified activity and addressed for each alternative in this analysis.

- Particulate matter (PM)—PM less than 10 microns in diameter ($PM_{10}$) and PM less than 2.5 microns in diameter ($PM_{2.5}$)
- Nitrogen oxides ($NO_X$)
- Sulfur dioxide ($SO_2$)
- Carbon monoxide (CO)
- VOC
- HAPs
- GHGs (carbon dioxide [$CO_2$], methane [$CH_4$], and nitrous oxide [$N_2O$]).

Estimated emissions from BLM actions under each alternative and estimated changes in emissions from BLM actions over the life of the plan vary by pollutant, management action, and year. In general, the major contributor

to total pollutant emissions over the life of the plan is predicted to be predominantly attributable to activities associated with oil and gas development. Activities associated with surface mining of coal and trona are predicted to be major contributors to particulate matter emissions. Activities associated with fire management, livestock grazing, and travel are predicted to contribute to some pollutant emissions as well. Table 4-34 and Table 4-35 summarize the estimated annual emissions for each alternative by pollutant.

**Table 4-34. Total Estimated Regulated Emissions Summary for Bureau of Land Management Activities in the Rock Springs Planning Area (Tons)**

| Scenario | $PM_{10}$ | $PM_{2.5}$ | $NO_X$ | $SO_2$ | CO | VOC | HAPs |
|---|---|---|---|---|---|---|---|
| Alternative A - Year 1 | 19,121 | 3,030 | 12,602 | 37 | 12,220 | 26,335 | 1,008 |
| Alternative B - Year 1 | 16,358 | 2,513 | 11,067 | 18 | 9,365 | 24,266 | 922 |
| Alternative C - Year 1 | 20,241 | 3,805 | 12,952 | 103 | 20,915 | 26,876 | 1,057 |
| Alternative D - Year 1 | 19,116 | 3,029 | 12,591 | 37 | 12,215 | 26,318 | 1,007 |
| Alternative A - Year 10 | 25,861 | 3,832 | 19,023 | 43 | 17,584 | 48,174 | 1,796 |
| Alternative B - Year 10 | 18,166 | 2,722 | 12,438 | 19 | 10,541 | 28,918 | 1,097 |
| Alternative C - Year 10 | 27,530 | 4,667 | 19,582 | 110 | 26,485 | 49,405 | 1,876 |
| Alternative D - Year 10 | 26,097 | 3,855 | 18,956 | 43 | 17,562 | 47,975 | 1,794 |
| Alternative A - Year 20 | 32,759 | 4,663 | 26,126 | 50 | 23,454 | 72,334 | 2,659 |
| Alternative B - Year 20 | 19,633 | 2,898 | 13,931 | 21 | 11,777 | 33,998 | 1,278 |
| Alternative C - Year 20 | 35,066 | 5,567 | 26,937 | 117 | 32,594 | 74,347 | 2,773 |
| Alternative D - Year 20 | 33,162 | 4,701 | 26,024 | 50 | 23,415 | 71,912 | 2,652 |

**Table 4-35. Total Estimated Greenhouse Gas Emissions Summary for Bureau of Land Management Activities in the Rock Springs Planning Area (Tons or Metric Tonnes)[1]**

| Scenario | $CO_2$ (tons) | $CH_4$ (tons) | $N_2O$ (tons) | $CO_2eq$ tons (100 Year) | $CO_2eq$ metric tonnes (100 Year)* | $CO_2eq$ tons (20 Year)** |
|---|---|---|---|---|---|---|
| Alternative A - Year 1 | 1,792,764 | 26,021 | 39 | 3,476,501 | 3,153,829 | 4,083,849 |
| Alternative B - Year 1 | 1,564,352 | 16,782 | 20 | 2,984,314 | 2,707,325 | 3,074,262 |
| Alternative C - Year 1 | 1,807,623 | 26,560 | 106 | 3,524,047 | 3,196,962 | 4,161,517 |
| Alternative D - Year 1 | 1,790,750 | 26,013 | 39 | 3,474,249 | 3,151,786 | 4,081,131 |
| Alternative A - Year 10 | 2,981,005 | 38,933 | 56 | 5,030,699 | 3,706,757 | 6,361,095 |
| Alternative B - Year 10 | 1,824,372 | 19,671 | 24 | 3,326,211 | 3,017,488 | 3,577,975 |
| Alternative C - Year 10 | 3,036,206 | 40,017 | 123 | 5,133,982 | 4,657,471 | 6,525,008 |
| Alternative D - Year 10 | 2,971,247 | 38,937 | 56 | 5,020,997 | 4,554,973 | 6,351,589 |
| Alternative A - Year 20 | 4,279,554 | 52,984 | 74 | 6,727,520 | 6,103,105 | 8,844,778 |
| Alternative B - Year 20 | 2,097,511 | 22,633 | 28 | 3,683,300 | 3,341,435 | 4,100,930 |

| Scenario | $CO_2$ (tons) | $CH_4$ (tons) | $N_2O$ (tons) | $CO_2eq$ tons (100 Year) | $CO_2eq$ metric tonnes (100 Year)* | $CO_2eq$ tons (20 Year)** |
|---|---|---|---|---|---|---|
| Alternative C - Year 20 | 4,380,881 | 54,693 | 142 | 6,894,592 | 6,254,671 | 9,107,486 |
| Alternative D - Year 20 | 4,260,853 | 52,955 | 74 | 6,707,907 | 6,085,313 | 8,823,508 |

[1]Emissions are gross for all activities and indirect and direct GHG's are not separated. Detailed descriptions of the emission calculations can be found in Appendix P, section T.6. Further information can be found in Appendix T, Cumulative Impact Analysis.
*Global Warming Potential (GWP)-100 yr $CH_4$ = 28, $N_2O$ = 265
** GWP-20 yr $CH_4$ = 84, $N_2O$ = 264

Existing air quality conditions, geographic characteristics, and estimated emissions for each alternative were evaluated to identify pollutants of concern and activities that emit significant quantities of pollutants of concern and to identify potential adverse impacts on air quality. The identification of the following pollutants, activities, and potential impacts under each alternative was used to design air quality management goals and objectives listed in Chapter 2 and the Air Quality Adaptive Management Strategy included in Appendix Q:

- The magnitude of estimated emissions of air pollutants from BLM authorized activities and management actions is predicted to be greatest under Alternative C which includes the highest level of energy development actions. Therefore, potential impacts to air quality under this alternative are expected to be greatest. Air quality impacts under Alternatives A and D are expected to be similar to current conditions at the proposed levels of development under these alternatives. Alternative B, with oil and gas development levels about half of Alternative C, would be expected to result in the least impacts to air quality. The estimated emissions and impacts on air quality associated with the Proposed RMP are the same as for Alternative B.
- The magnitude of estimated emissions from BLM authorized oil and gas activities at the level of development predicted in Alternatives A, C, and D over the life of the plan have the potential to contribute to increased ambient concentrations of ozone in the Rock Springs planning area and the Upper Green River Basin ozone (2008 standard) nonattainment area during the summer and winter ozone seasons. Estimated emissions from BLM authorized oil and gas activities under Alternative B and the Proposed RMP have the potential to contribute to ozone formation in the region but significantly less than the other alternatives due to the more restrictive oil and gas production rates in these alternatives. For example, Alternative B authorizes fewer wells for gas and oil development.
- The magnitude of and increases in estimated emissions from BLM authorized oil and gas activities at the level of development predicted in Alternatives A, C, and D have the potential to cause impacts related to visibility degradation and increased atmospheric deposition at sensitive areas such as the Fitzpatrick Wilderness Area to the north and the Mount Zirkel Wilderness Area to the south. Emissions predicted under Alternative B and the Proposed RMP also have the potential to impact visibility and deposition but significantly less than the other alternatives.
- The magnitude of and increases in estimated emissions from solid mineral development, including surface mining of coal and trona, at the level of development predicted for all alternatives over the life of the plan have the potential to cause impacts related to fugitive dust and increased ozone formation, visibility degradation, and atmospheric deposition.
- The estimated emissions of GHGs directly associated with solid mineral development and livestock grazing under all alternatives are not predicted to significantly change from current conditions during the life of the plan while direct emissions of GHGs associated with oil and gas development under all alternatives are predicted to increase, which is due to a larger estimated number of oil and gas wells being installed.

## 4.3.2 Alternative B

Alternative B emission estimates result in the lowest total air pollutant emissions in future project years and conserve the most land area for physical, biological, and cultural resources. This alternative emphasizes the improvement and protection of habitat for wildlife and sensitive plant and animal species, improvement of riparian areas, and implementation of management actions that improve water quality and enhance protection of cultural resources. This alternative would likely result in the least adverse impacts on air quality (Table 4-34 and Table 4-35). Tables of the estimated emissions calculations by source category and the key assumptions used in the calculations are provided in Appendix P.

### Fluid Minerals

Estimated emissions from oil and gas development for Alternative B were calculated using a reasonably foreseeable development (RFD) rate based on historical development rates for federal wells within the planning area over the last 20 years. Estimated emissions from oil and gas activities were based on installation of 1,231 new BLM wells and associated drilling, completion, gas treatment, and compression activities over the life of the plan, with a rate of 75% of all new oil and gas wells being producing wells. Estimated emissions from 1,536 existing base year BLM wells and associated decline over a 20-year period were also included in the estimated emissions calculations at a rate of 12 oil and gas wells abandoned annually.

Estimated emissions from coalbed natural gas (CBNG) activities were based on installation of 61 new BLM wells and associated drilling, completion, gas treatment, and compression activities over the life of the plan, with a rate of 80% of all new oil and gas wells being producing wells. Estimated emissions from 28 existing base year BLM wells and associated decline over a 20-year period were also included in the estimated emissions calculations at a rate of one CBNG well abandoned annually. Appendix P includes additional details on the assumptions used in calculating emissions from oil and gas activities for this alternative. The general assumptions used to estimate emissions for Alternative A are the same for Alternative B.

The reasonably foreseeable potential emissions for Alternative B, oil and gas development, is less than all other alternatives as Alternative B is the most restrictive alternative.

### Solid Minerals

Estimated emissions for solid mineral development activities for Alternative B include coal mining, trona mining, and sand and gravel mining. Solid mineral development and emissions estimates over the life of the plan for this alternative are the same as Alternative A except the assumption of a decrease in sales of sand and gravel (4,000 tons mined per year) for each year of the plan.

### Land Resources – Rights-Of-Way and Renewable Energy

Emissions generating activities associated with rights-of-way (ROW) include construction activities for wind energy projects, communication sites, transmission lines, and non-oil and gas pipelines. A total of 21 projects with an average of 107 acres of disturbance per project were assumed as the level of development for this category (note wind energy projects make up the majority of the acreage). This level of development is not expected to vary by alternative or increase over the life of the plan. Estimated emissions are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts.

### Livestock Grazing

Emissions generating activities associated with this category include primarily construction activities in support of grazing operations. Construction and maintenance of reservoirs, springs, wells, pipelines, and fences generate

fugitive dust and combustion emissions from construction equipment. Estimated emissions are based on animal unit months (AUM) from cattle grazing permits. Because Alternative B is a conservative approach, grazing activities are less than other alternatives. Estimated emissions from this category are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts.

### Trails and Travel Management

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A.

### Vegetation – Fire Management and Ecology and Mechanical Treatment

Emissions generating activities associated with the category included smoke (particulate matter and other products of combustion) from prescribed and wildfires and combustion emissions from mechanical equipment used to manage vegetation and wildlife habitat. Estimated emissions were calculated based on no acres burned and an increase in weed treatment in the planning area. The magnitude of emissions from prescribed fire has the potential to result in impacts on visibility, ozone formation, and human and wildlife health.

## 4.3.3 Alternative C

Alternative C emission estimates result in the greatest magnitude and increase in total air pollutant emissions. Alternative C proposes the least restrictive management actions for energy and commodity development and the least protective management actions for physical, biological, and cultural resources while maintaining protections required by laws and regulations. Under this alternative, development and use of resources within the planning area would occur with intensive management of surface disturbing and disruptive activities. This alternative has the highest potential for adverse impacts on air quality (Table 4-34 and Table 4-35). Tables of the estimated emissions calculations by source category and the key assumptions used in the calculations are provided in Appendix P.

### Fluid Minerals

Estimated emissions from oil and gas development for Alternative C were calculated using an RFD rate based on historical development rates for federal wells within the planning area over the last 20 years. Estimated emissions from oil and gas activities were based on installation of 4,776 new BLM wells and associated drilling, completion, gas treatment, and compression activities over the life of the plan, with a rate of 75% of all new oil and gas wells being producing wells. Estimated emissions from 1,536 existing base year BLM wells and associated decline over a 20-year period were also included in the estimated emissions calculations at a rate of 12 oil and gas wells abandoned annually.

Estimated emissions from CBNG activities were based on installation of 143 new BLM wells and associated drilling, completion, gas treatment, and compression activities over the life of the plan, with a rate of 80% of all new oil and gas wells being producing wells. Estimated emissions from 28 existing base year BLM wells and associated decline over a 20-year period were also included in the estimated emissions calculations at a rate of one CBNG well abandoned annually. Appendix P includes additional details on the assumptions used in calculating emissions from oil and gas activities for this alternative. The general assumptions used to estimate emissions for Alternative A are the same for Alternative C.

The reasonably foreseeable potential for oil and gas development for Alternative C is greater than Alternatives A, B, and D for oil and gas activities. The estimated emissions for oil and gas development under this alternative reflect this substantially higher level of development compared to Alternative B and slightly higher than that of Alternatives A and D. The magnitude of $NO_X$ and VOC emissions would likely contribute to increased

concentrations of ozone formation and has the potential to contribute to adverse impacts associated with ozone formation.

### Solid Minerals

Estimated emissions for solid mineral development activities for Alternative C include coal mining, trona mining, and sand and gravel mining. Solid mineral development and emissions estimates over the life of the plan for this alternative are the same as Alternative A except the assumption of an increase in sales of sand and gravel equivalent to the base year (6,500 tons mined per year) for each year of the plan.

### Land Resources – Rights-Of-Way and Renewable Energy

Emissions generating activities associated with ROWs include construction activities for wind energy projects, communication sites, transmission lines, and non-oil and gas pipelines. A total of 47 projects with an average of 113 acres of disturbance per project were assumed as the level of development for this category (note wind energy projects make up the majority of the acreage). Estimated emissions are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts.

### Livestock Grazing

Emissions generating activities associated with this category include primarily construction activities in support of grazing operations. Construction and maintenance of reservoirs, springs, wells, pipelines, and fences generate fugitive dust and combustion emissions from construction equipment. Estimated emissions are based on AUMs from cattle grazing permits. Because Alternative C is the least restrictive management approach, grazing activities are expected to be more than other alternatives. Estimated emissions from this category are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts.

### Trails and Travel Management

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A.

### Vegetation – Fire Management and Ecology and Mechanical Treatment

Emissions generating activities associated with the category included smoke (particulate matter and other products of combustion) from prescribed and wildfires and combustion emissions from mechanical equipment used to manage vegetation and wildlife habitat. Estimated emissions were calculated based on historical acres burned and treated in the planning area. An increase of current practices was assumed for this alternative. The magnitude of emissions from prescribed fire has the potential to result in impacts on visibility, ozone formation, and human and wildlife health.

## 4.3.4 Alternative D

Alternative D results in the next to lowest emissions of all alternatives for most emissions, including greenhouse gasses. Because the RFD predicted a larger number of CBNG wells for Alternative D than Alternative A, Alternative D has higher emissions than Alternative A for some pollutants (Table 4-34 and Table 4-35). Tables of the estimated emissions calculations by source category and the key assumptions used in the calculations are provided in Appendix P.

## Fluid Minerals

Estimated emissions from oil and gas development for Alternative D were calculated using an RFD rate based on historical development rates for federal wells within the planning area over the last 20 years. Estimated emissions from oil and gas activities were based on installation of 4,603 new BLM wells and associated drilling, completion, gas treatment, and compression activities over the life of the plan, with a rate of 75% of all new oil and gas wells being producing wells. Estimated emissions from 1,536 existing base year BLM wells and associated decline over a 20-year period were also included in the estimated emissions calculations at a rate of 12 oil and gas wells abandoned annually.

Estimated emissions from CBNG activities were based on installation of 134 new BLM wells and associated drilling, completion, gas treatment, and compression activities over the life of the plan, with a rate of 80% of all new oil and gas wells being producing wells. Estimated emissions from 28 existing base year BLM wells and associated decline over a 20-year period were also included in the estimated emissions calculations at a rate of one CBNG well abandoned annually. Appendix P includes additional details on the assumptions used in calculating emissions from oil and gas activities for this alternative. The general assumptions used to estimate emissions for Alternative A are the same for Alternative D.

The reasonably foreseeable potential for oil and gas development for Alternative D is less than Alternatives A and C for most activities, with the exception of CBNG, where Alternative D is slightly higher than that of Alternative A. The estimated emissions for oil and gas development under this alternative reflect a lower level of development compared to Alternative A and C with exception to CBNG. The magnitude of $NO_X$ and VOC emissions would likely contribute to increased concentrations of ozone formation and have the potential to contribute to adverse impacts associated with ozone formation.

## Solid Minerals

Estimated emissions for solid mineral development activities for Alternative D include coal mining, trona mining, and sand and gravel mining. Solid mineral development and emissions estimates over the life of the plan for this alternative are the same as Alternative A.

## Land Resources – Rights-Of-Way and Renewable Energy

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A.

## Livestock Grazing

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A.

## Trails and Travel Management

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A.

## Vegetation – Fire Management and Ecology and Mechanical Treatment

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A for fire management. For vegetation management, Alternative D includes more weed treatment; however, this minor increase has little impact on the estimated emissions.

## 4.3.5 Proposed RMP

The estimated emissions and impacts on air quality for the Proposed RMP are predicted to fall between the levels proposed under Alternative B and Alternative D.

### Fluid Minerals

Estimated emissions and impacts on air quality from oil and gas development for the Proposed RMP are predicted to fall between Alternative B and Alternative D. Although the BLM did not complete an RFD scenario for the specific blend of management included in the Proposed RMP, all management in the Proposed RMP was analyzed under one or more of these other alternatives. The BLM notes that the acreage restrictions and closures for fluid mineral leasing would generally be between Alternative B and Alternative D, but closer to Alternative D. As a result, the BLM anticipates that the number of wells developed and fluid leasable mineral activity (and therefore the emissions related to oil and gas development) will be between those estimated for Alternative B and Alternative D, but closer to the numbers presented in Alternative D. Refer to Table 4-34 and Table 4-35, above, for the estimated emissions of Alternative B and Alternative D.

### Solid Minerals

Estimated emissions for solid mineral development activities for the Proposed RMP include coal mining, trona mining, and sand and gravel mining. Solid mineral development and emissions estimates over the life of the plan for this alternative are predicted to be in between Alternative B and Alternative D. The acreage restrictions and closures for solid mineral leasing would generally be between Alternative B and Alternative D, but closer to Alternative D. Therefore, the emissions related to solid mineral development activities are predicted to be closer to Alternative D, compared to Alternative B. As noted under Alternative D, solid mineral development and emissions estimates over the life of the plan for that alternative are the same as Alternative A, and the BLM anticipates that the Proposed RMP values would also be similar to Alternative A. Refer to Table 4-34 and Table 4-35, above, for the estimated emissions of Alternative B and Alternative D.

### Land Resources – Rights-of-Way and Renewable Energy

Estimated emissions and impacts on air quality associated with ROW management and renewable energy development for the Proposed RMP are predicted to be in between Alternative B and Alternative D. The acreage restrictions and closures for ROW management and renewable energy development would be between Alternative B and Alternative D, but closer to Alternative D. Therefore, the emissions related to ROW management and renewable energy development are predicted to be closer to Alternative D, compared to Alternative B. As noted under Alternative D, ROW management and renewable energy development and emissions estimates over the life of the plan for that alternative are the same as Alternative A, and the BLM anticipates that the Proposed RMP values would also be similar to Alternative A. Refer to Table 4-34 and Table 4-35, above, for the estimated emissions of Alternative B and Alternative D.

### Livestock Grazing

Estimated emissions and impacts on air quality associated with management of livestock grazing for the Proposed RMP are predicted to be in between Alternative B and Alternative D, and overall very similar to those under Alternative A. Refer to Table 4-34 and Table 4-35, above, for the estimated emissions. Estimated emissions from this category are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts.

### Trails and Travel Management

Estimated emissions and impacts on air quality are predicted to be the same as Alternative A.

### Vegetation – Fire Management and Ecology and Mechanical Treatment

Estimated emissions and impacts on air quality associated with vegetation and fire management for the Proposed RMP are predicted to be in between Alternative B and Alternative D. The acreage restrictions and closures for vegetation and fire management would be between Alternative B and Alternative D, but closer to Alternative D. Therefore, the emissions related to vegetation and fire management are predicted to be closer to Alternative D, compared to Alternative B. Refer to Table 4-34 and Table 4-35, above, for the estimated emissions of Alternative B and Alternative D.

## 4.3.6 Air Quality Adaptive Management Strategy

The RSFO has developed an Air Quality Adaptive Management Strategy in lieu of emissions modeling. The Air Quality Adaptive Management Strategy is intended to present the processes, procedures, and actions that support adaptive management principles for the protection of air resources and atmospheric values within the Rock Springs planning area. This Air Quality Adaptive Management Strategy describes air resources management and outlines specific requirements for proponents of projects that have the potential to generate air emissions and impact air resources. The Air Quality Adaptive Management Strategy provides the flexibility to respond to changing conditions that could not have been predicted during RMP development and allows for the use of new technology and methods that may minimize or reduce impacts. The Air Quality Adaptive Management Strategy can be found in Appendix Q.

# 4.4 SOIL RESOURCES

## 4.4.1 Alternative B

Impacts on soil resources resulting from implementing actions associated with the management of air quality would be the same as those presented under Alternative A.

Prohibiting surface disturbing activities in areas with limited reclamation potential soils would provide greater protections to soils, compared to Alternative A, as these areas would be prohibited areas, rather than avoidance areas. They would also be managed as no surface occupancy (NSO) for fluid minerals, closed to mineral materials sales/disposals, and closed to all solid mineral leasing. Additional soils management actions would provide further protections to soils, including the use of photo point monitoring for all channel crossings and all surface disturbance greater than 0.5 acres, which would inform land managers when vegetation cover is removed, and soil erosion or excess sedimentation is occurring in these areas. The preparation of site-specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, and enhance water quality) would be required in all areas and more stringent requirements for activity and implementation planning and monitoring would be required, compared to Alternative A.

Impacts on soil resources resulting from implementing water management actions would be similar to those presented under Alternative A, except that the restrictions near surface water sources would be increased. Surface disturbing activities would be prohibited within ¼ mile of 100-year floodplains, wetlands, riparian areas, perennial streams, and within 500 feet of the edge of the inner gorge of large ephemeral drainages. This would eliminate surface disturbance and related soil impacts within these areas and provide increased protections to soil resources over a larger area compared to Alternative A.

Managing lands with wilderness characteristics specifically to preserve those characteristics would prevent surface disturbance and protect soils in these areas, as management actions would include closing these lands to fluid minerals, mineral material sales/disposal, all solid mineral leasing, mineral location, and designating exclusion areas for all new ROWs. These lands would also be managed for Visual Resource Management (VRM) Class II, and the state parcels and inholdings within these areas would be pursued for acquisition. However, allowing motorized travel for access to state/private parcels within these areas could result in localized surface disturbance and resulting overland water flow and sediment loading.

In areas open to fluid mineral leasing under standard terms and conditions, the impacts to soil resources would be similar to those described under Alternative A. Under Alternative B, 99,674 acres would be managed with controlled surface use (CSU) stipulations (approximately 86% reduction in acreage compared to Alternative A) and 713,837 acres would have seasonal timing limitation stipulations (TLS) (approximately 61% fewer acres than under Alternative A). However, 813,354 acres would be managed with NSO stipulations, an acreage increase of approximately 413% compared with Alternative A. This NSO designation, along with 2,186,218 acres that would be closed to fluid mineral leasing (an approximately 305% increase in acreage compared to Alternative A) would eliminate surface disturbance from fluid mineral development and therefore protect soil resources across a larger area compared with Alternative A.

In areas open to coal resource inventory and exploration, along with leasing and development, impacts to soils would be the same as discussed in Alternative A; and 3,535,546 acres would be closed to exploration and leasing for coal development (628% increase), which would provide greater protections to soil resources in these areas, compared to Alternative A, as the surface disturbing activities associated with exploration and leasing would not occur. Approximately 2,122,282 acres would be excluded or closed for oil shale development (192% increase), which would reduce the extent of impacts compared with Alternative A.

Approximately 1,993,908 acres would be pursued for withdrawal from locatable mineral entry. This would result in protections for soil resources similar to Alternative A, but to a larger extent as there would be approximately 258% more acres withdrawn.

Impacts to soils from saleable minerals management actions would be similar to Alternative A, but to a lesser extent. Under Alternative B, 2,581,741 acres would be closed to saleable mineral disposal (an approximately 210% increase compared to Alternative A). In these additional closed areas, impacts would be reduced as surface disturbing activities associated with mineral material disposal, and subsequent erosion and sedimentation would not occur.

Fire and fuels management actions would have impacts to soils similar to those discussed in Alternative A, except stricter stipulations on heavy equipment use could provide more localized protections to soils in these areas.

Management actions for forests and woodlands would also be similar to Alternative A, except logging operations on slopes steeper than 25% would be prohibited, which would provide more protections to soils, compared to Alternative A, by maintaining vegetative cover and soil stability.

Vegetation treatment actions would have similar impacts to soils as those discussed in Alternative A, but longer resting times for treated areas would likely provide greater protections to soils in these areas as vegetation and soil would have a longer timeframe to establish and stabilize. Requiring management plans to maintain, improve, or restore vegetation in all riparian areas within five growing seasons could provide greater long-term protections, compared to Alternative A, by defining a timeframe for implementation.

Habitat management actions for fish and wildlife would have similar impacts as discussed in Alternative A. Actions to maintain or improve habitat, such as reducing livestock grazing and requiring selective placement of water developments would reduce surface disturbance in the vicinity of streams and water bodies resulting in

improved riparian and soil conditions. Applying seasonal surface disturbance restrictions to wildlife habitat would provide protections to soil resources similar to Alternative A, but to a greater extent, as the restrictions would cover the entire planning area. Locations where stipulations, mitigations, and surface occupancy and/or disturbance restrictions for mineral activity apply would all provide protections to soil resources by minimizing vegetation removal, erosion, and excess sediment, salt, and nutrient loading to surface water.

Surface disturbing and disruptive activities would be prohibited to maintain aquatic and terrestrial habitat. These areas would be NSO for fluid minerals, closed to mineral material sales/disposal, and closed to all solid mineral leasing. These actions would provide protections to soil resources similar to Alternative A, but to a greater extent, as these activities would now be prohibited year-round, rather than seasonally. Similarly, closing big game crucial winter ranges and birthing areas from coal leasing and development would provide greater protections to soil resources, compared to Alternative A, as the soil compaction, vegetation removal, and subsequent erosion and sedimentation associated with these activities would not occur.

Applying NSO stipulations and closures in areas with special status plant species would result in the same protections to soil resources as discussed in Alternative A. Additional restrictions, such as designating ROW exclusion areas, would provide greater protections to soil resources, compared to Alternative A, as these areas would be exclusion areas, rather than avoidance areas. Prohibiting use of fire chemicals, salt or mineral supplements, and range improvements within ¼ mile of special status plant species could indirectly further protect soil quality in these areas.

Any management actions to protect special status species that result in surface disturbance (e.g., burying power lines) would have similar impacts to soil resources as discussed in Alternative A. Designating seasonal avoidance and limitations for surface disturbing activities in and near special status species' habitat would provide similar short-term protections to soil resources as discussed in Alternative A, but to a greater extent as there would also be seasonal surface disturbing and disruptive activities prohibitions and closures.

Protections to soils from management of specific cultural resource sites would be similar to Alternative A, but restrictions to mineral activities, including designating NSO and closed areas for fluid minerals, would be over a larger area compared to Alternative A, providing protections to a greater extent. Paleontological resource management activities would have the same impacts as discussed in Alternative A, but to a greater extent, as mitigation requirements and additional closures for mineral material sales would also be in place.

VRM actions would provide greater protections to soils resources compared to Alternative A. Alternative B would have fewer VRM Class IV areas, and more VRM Class II areas. Under Alternative B, 2,148,902 acres would be managed as VRM Class II, an approximate 269% increase of acres compared to Alternative A. Approximately 563,754 acres would be managed as VRM Class IV, which would be an approximately 74% reduction of acres compared to Alternative A, and thus the potential for impacts to soils would be reduced.

Lands and realty management actions would be similar to Alternative A, except where additional lands are retained. Retention of additional public lands would result in the continued level of protections for soils. Conversely, any potential disposal of lands would remove those protections from the affected lands.

Impacts to soils from ROW management would be similar to Alternative A in areas open for ROW actions. However, under this alternative, 2,480,876 acres would be designated as ROW exclusion areas, an approximately 481% increase in acres compared to Alternative A, and ROW avoidance acres would decrease by approximately 82%, to 133,903 acres. Although ROW avoidance acres would decrease, the larger increase in ROW exclusion areas would result in less likelihood for surface disturbing activities in these areas, and thus protections to soil resources would be greater under this alternative, compared to Alternative A. Additional measures to co-locate pipelines, power lines and other utilities adjacent to or within existing ROWs to reduce new surface disturbance would provide further protections to soils.

Livestock grazing management actions would be similar to Alternative A, except where areas open to grazing under Alternative A would be prohibited or closed to livestock grazing (exclosures and recreation areas). In these areas, reduced grazing pressure on vegetation would provide greater protections to soils, compared to Alternative A.

Recreation management actions would provide more protections to soils, compared to Alternative A. Camping would be prohibited in riparian areas, or within 200 feet of water, and surface disturbing activities would be prohibited within three miles or the visual horizon of developed recreation sites. Recreation site facilities would also be prohibited within 500 feet of riparian areas. These additional stipulations would result in less localized surface disturbance, providing greater protections to soils, compared to Alternative A. In addition, where surface disturbance is allowed, an approved plan would be required prior to site disturbance, which would likely reduce the extent of impacts.

Impacts to soils from off-highway vehicle (OHV) management actions would be similar to Alternative A, with 12,831 acres open, 225,537 acres closed, and 3,367,576 acres limited to designated roads and trails. In areas where OHVs are causing or will cause considerable adverse effects upon a range of resources, there would be less surface disturbance and reduced impacts to soils, compared to Alternative A, as these areas would be immediately closed until adverse effects are eliminated.

On National Historic Trails (NHT), a five-mile area on each side of the NHTs would be managed as closed to mineral leasing and mineral material sales, as an exclusion area for ROWs, and a withdrawal would be pursued. Additionally, within five to 15 miles on each side of the NHTs, the area would be managed as open to mineral leasing and mineral material sales with CSU restrictions, available to locatable mineral entry, and would be a ROW avoidance area with CSU restrictions. The areas within the five miles of the NHTs would have the most protections to soils from surface disturbing activities, as the stipulations would be more restrictive. However, soils within five to 15 miles of the NHTs would also receive protections from these stipulations. Both of these areas would receive more protections to soils, compared to Alternative A.

Wilderness Study Area (WSA) and Wild and Scenic River (WSR) management would provide the same protections to soils as discussed in Alternative A. Management actions for Areas of Critical Environmental Concern (ACEC) would be similar to Alternative A, but to a greater extent as 1,605,660 acres would be managed as ACECs under this alternative. Additional stipulations that close, exclude, restrict, or prohibit surface disturbance and surface disturbing activities would provide further protections, compared to Alternative A.

### 4.4.2 Alternative C

Impacts on soil resources resulting from implementing actions associated with the management of air quality would the same as those presented under Alternative A.

Surface disturbing activities would not be prohibited in areas with limited reclamation potential soils nor would these areas be designated avoidance areas for surface disturbing activities resulting in increased impacts on soil resources as compared to Alternatives A and B. Closure of Pilot Butte and Emmons Cone to mineral materials sales/disposals would provide greater protections to geological resources than Alternative A.

Impacts on soil resources resulting from implementing water management actions would increase compared to Alternative A, due to reduced restrictions on surface disturbing activities. Such activities would be considered within riparian areas, wetlands, and 100-year floodplains or adjacent to the inner gorge of large ephemeral drainages. This would increase the extent of potential vegetation removal and soil exposure, erosion, compaction, and loss compared with Alternative A. No limits to road density and surface occupancy would be designated in aquifer recharge areas resulting in impacts to groundwater quality and aquifer recharge greater than those presented under Alternative A.

Under this alternative, all lands identified as having wilderness characteristics would not be managed to protect those characteristics. This management could impact soil resources in areas where any surface disturbing activities were to occur, causing loss of vegetation, destabilized soils, and increased erosion.

Under Alternative C, 225,782 acres would be closed to new fluid mineral leasing (a decrease in acreage of approximately 58% compared to Alternative A), and 15,542 acres would be managed as NSO, also a decrease in acreage of approximately 90% compared to Alternative A. Approximately 215,890 acres would be managed as CSU (approximately 70% fewer acres than Alternative A) and 1,355,485 acres would have seasonal restrictions (an approximately 26% decrease in acres compared to Alternative A) (Map 2-8) (Table 2-4 in Appendix V). The decrease in acres designated as closed, NSO, CSU, and seasonally restricted would provide less protection to soils, compared to Alternative A. However, use of best management practices (BMP) and required mitigation measures could help to reduce the extent of these impacts.

Impacts to soils from coal leasing and development would be similar to those discussed in Alternative A, but to a greater extent as 226,219 acres would be closed, a 53% decrease compared to Alternative A. Impacts to soils from oil shale leasing and development would increase compared to those discussed under Alternative A, as 225,965 acres would be closed to leasing and development of oil shale, a 69% decrease.

Under this alternative, 234,961 acres would be pursued for withdrawal from locatable mineral entry. Impacts on soil resources could slightly increase, as approximately 321,597 fewer acres would be closed compared to Alternative A.

Saleable minerals management actions would have impacts similar to Alternative A, but likely to a greater extent, as 226,421 acres would be closed to mineral material sales/disposal, a decrease of 73% compared to Alternative A.

Fuels and fire management actions would have impacts to soils similar to those discussed in Alternative A, except stricter stipulations on heavy equipment use could provide more localized protections to soils in these areas.

Impacts to soils from forest and woodland management actions would likely be greater, compared to Alternative A, as woodlands would be managed to provide forest and woodland products to the public, rather than protections to resources. Clear-cutting and thinning would be allowed in more areas, which could result in greater impacts to soils in both the short-term and long-term, compared to Alternative A.

Vegetation treatment and habitat management actions would have similar impacts to soils as those discussed in Alternative A. Management actions that would maintain, improve, or restore riparian habitat, would provide similar protections to soils as discussed in Alternative A. Requiring management plans to achieve these objectives in all riparian areas, within ten years, could provide greater long-term protections, compared to Alternative A, by defining a time-frame for implementation.

Habitat management actions for fish and wildlife would have similar impacts as discussed in Alternative A, but likely to a greater extent, as allowing more grazing areas, water developments, structures, and energy production in habitat areas could result in greater surface disturbance, vegetation removal, soil compaction, and subsequent erosion. Vegetation treatments would have similar impacts as discussed in Alternative B. In habitats where surface disturbance restrictions are in place, these actions would provide protections to soils similar to Alternative B.

Surface disturbing activities would be allowed within specific cultural resource sites resulting in increased impacts to soils as compared to Alternative A. Paleontological resource management actions would have increased impacts to soils as compared to Alternative A.

Impacts to soil resources from managing visual resources would be similar to those described under Alternative A, except 395,683 acres would be managed as VRM Class III, a decrease of 219,809 acres, compared to Alternative A and 2,374,706 acres would be managed as VRM Class IV, an increase of 194,283 acres compared to Alternative A. This change in VRM designations could result in greater impacts to soils in these areas.

Lands and realty management actions would be similar to Alternative A. ROW exclusion areas would decrease by approximately 47% compared to Alternative A, to 225,784 acres. ROW avoidance areas would also decrease by approximately 96%, to 31,018 acres. Protections to soils would be reduced compared to Alternative A. ROW management actions that co-locate utilities and required mitigation measures would provide similar protections to soils as discussed in Alternative B, and withdrawal action impacts would be similar to those discussed in Alternative A.

Livestock grazing management actions differ from Alternative A, as 160,387 AUMs would be allocated for livestock, 158,260 (50%) fewer AUMs than Alternative A. Adjusting active use AUMs to facilitate proper grazing management or make significant progress toward rangeland standards and goals and objectives of the RMP could decrease localized impacts to soils.

Recreation management actions and impacts to soil resources would be similar to Alternative A but could be to a larger extent. The development of permanent recreation sites and facilities in undeveloped recreation use areas would be allowed, which would provide fewer protections to soils, compared to Alternative A, as there would not be an avoidance or prohibited area within 500 feet of riparian areas. Surface disturbing activities would be permitted within ¼ mile of developed recreation sites and trails if they are determined to be compatible with or are done for meeting recreation objectives for the area, which would provide fewer protections to soils compared to Alternative A.

OHV area designations would be managed similar to Alternative A, as 13,332 acres would be managed as open, 225,537 acres would be managed as closed, and 3,369,418 acres limited to designated roads and trails. Impacts to soil resources from these designations would be similar to Alternative A.

Impacts from special designation, WSAs, and WSR management actions would be similar to Alternative A. No ACECs would be designated or retained under this alternative, which would likely reduce protections to soils in these areas.

### 4.4.3 Alternative D

Impacts to soil resources resulting from implementing actions associated with the management of air quality, water, wildlife, and special status species, cultural resources, paleontological resources, and livestock grazing, fire and fuels, and forests and woodlands would the same as those presented under Alternative A.

Impacts to soils from implementing soil management actions would be similar to those identified under Alternative A. Areas with limited reclamation potential soils (those with limited reclamation potential as per the Natural Resources Conservation Services (NRCS) soil rating) would be designated avoidance areas for surface disturbing activities, which would reduce the extent of surface disturbing activities in these areas and thereby reduce associated impacts to soil resources. However, under Alternative D, an operator must submit an approved mitigation plan before a proposed project on limited reclamation potential soils will be approved. This could provide a greater degree of protection to limited reclamation potential soils compared to Alternative A, as similar plans would be required under Alternative A only when deemed applicable. Closure of Pilot Butte and Emmons Cone to mineral materials sales/disposals and segregation and withdrawal of these areas would provide greater protections to geological resources than Alternative A.

Impacts on soil resources from managing lands with wilderness characteristics would be greatly increased compared to Alternative B. Under Alternative D, lands with wilderness characteristics would be managed for a variety of uses with only consideration of those characteristics. The management would help to reduce development activities within these areas, but to a far lesser degree than under Alternative B. These areas would not be closed to mineral development as they would be under Alternative B, which would increase the potential occurrence of surface disturbing activities within the nine areas of lands with wilderness characteristics. The activities would result in vegetation removal, the exposure of soils, wind and water erosion and subsequent soil loss, soil compaction, and loss of soil productivity.

Impacts to soil resources from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except stipulations that prohibit fluid mineral leasing would be applied to a smaller area. Under Alternative D, 768,989 acres would be closed to fluid mineral leasing (42% increase compared with Alternative A). Fewer areas would be managed with NSO stipulations (2,172 acres would be managed with NSO stipulations, which is a 99% decrease compared with Alternative A (Table 2-4 in Appendix V, Map 2-9). However, a larger area could be subject to CSU stipulations (1,238,899 acres, which is a 72% increase) and seasonal restrictions (1,911,167 acres which is a 54% increase) as compared with Alternative A. While prohibitions on fluid mineral leasing would reduce surface disturbance and thereby reduce related impacts to soil resources, managing more areas with NSO stipulations would result in decreased soil disturbance, compared with Alternative A.

Impacts on soil resources from solid leasable mineral development activities would be similar to those presented under Alternative A, except the area in which such mineral development is prohibited would be increased to 610,342 acres for coal (26% increase compared with Alternative A) and increased to 1,557,520 acres for oil shale (114% increase compared with Alternative A) (Table 2-7 in Appendix V, Map 2-14). This would increase the area in which soil resources could be impacted by coal development and decrease oil shale development activities on soil resources.

Impacts on soil resources from locatable and saleable mineral development activities would be similar to those presented under Alternative A. Under Alternative D, the lands closed to saleable minerals would be decreased to 362,009 acres, a 57% decrease compared with Alternative A (Table 2-8 in Appendix V, Map 2-19), which would increase the amount of land that could be subject to surface disturbance, vegetation removal, soil loss, and erosion. Lands withdrawn from locatable mineral development would decrease to 482,272 acres, a 13% decrease compared with Alternative A (Table 2-3 in Appendix V, Map 2-4). This management would increase the area in which soil resources could be impacted by locatable mineral development activities, which would decrease the potential for soil exposure to wind and water erosion and subsequent soil degradation and loss.

Impacts on soil resources from managing vegetation resources would be similar to those presented under Alternative A. Under Alternative D, prescribed fire would not be the preferred method for vegetation treatments as it is under Alternative A; however, because all vegetation treatment types are available under Alternative D, the impacts on soil resources would be essentially the same.

Impacts on soil resources resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be greatly increased to 1,178,718 acres (1202% increase compared with Alternative A) (Table 2-9 in Appendix V, Map 2-24), which could lead to decreased soil erosion and loss. Increasing the area managed as VRM Class II would increase the area in which development is restricted in order to be consistent VRM Class II objectives. This could reduce the overall level and intensity of development and result in less soil exposure, erosion, and loss.

Impacts on soil resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be increased. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres (33% decrease compared with Alternative A) (Table

2-10 in Appendix V, Map 2-29), which would decrease the area in which ROW development activities are prohibited. This would increase impacts on soils from ROW development in these areas and could lead to an overall increase of such development across the planning area, thereby degrading soil health and productivity. Considering authorization of renewable energy ROWs within the Known Sodium Leasing Area (KSLA) would provide less protections to soil resources, compared to Alternative A, as surface disturbing activities could occur in these areas. Closing the utility window located in the Little Mountain ACEC would eliminate impacts on soils in that area.

Impacts on soil resources from managing recreation resources would be similar to those presented under Alternative B, except no surface occupancy restrictions would be placed on areas within ¼ miles of developed recreation sites, which would reduce the intensity and extent of surface disturbance in these areas and thereby result in fewer associated impacts to soil resources.

Impacts on soil resources from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as "limited to existing roads and trails" (2,398,839 acres) would be changed to "limited to designated roads and trails" and all routes within this area would be designated as open, closed, or limited.

Impacts on soil resources from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a larger area and thereby offer greater protections to important historic, cultural, wildlife, and scenic values in these areas. This management would reduce surface disturbing activities and indirectly help to protect and maintain soil resources. The acres designated as ACECs would decrease to 246,634 acres (14% decrease compared with Alternative A).

### 4.4.4 Proposed RMP

The Proposed RMP is a combination of management actions primarily from Alternative B and Alternative D and would have similar impacts as previously described under those alternatives. The Proposed RMP opens more areas for surface disturbance activities that may adversely affect soil resources compared to Alternative B, but fewer areas than under Alternative A. The implementation of BMPs should avoid or reduce soil impacts at the project level. In general, the Proposed RMP would increase protections for soils resources when compared to Alternatives A, C, and D, but decrease protections compared to Alternative B.

Impacts on soil resources resulting from implementing actions associated with the management of air quality would be the same as those under Alternative B, except that like Alternative D, dust abatement would be applied on a case-by-case basis using BMPs to protect air quality, which would also reduce soil impacts. Overall, impacts on soil resources from the management of air quality under the Proposed RMP would generally be the same as Alternatives A and B.

Impacts on soils from implementing soil-management actions would be similar to those identified under Alternatives A and D. Under the Proposed RMP, an operator must submit an approved mitigation plan before a proposed project on limited reclamation-potential soils can be approved. This would provide a greater degree of protection to, and mitigate loss of, limited reclamation potential soils compared to Alternative A, as similar plans would be required under Alternative A only when deemed applicable. The management of geological resources would be the same as Alternative A.

The impacts on soil resources from the management of vegetation resources would be similar to those presented under Alternative A and implemented in accordance with the guidelines in Appendix A, except where vegetation treatments can improve water quality and reduce erosion. The Proposed RMP would have similar vegetation management direction as Alternative B, but would allow more methods of treatments, such as chemical and

mechanical, to achieve vegetation goals. These types of treatments could have greater short-term surface disturbance impacts on soils, but may provide better soil stability after natural vegetation is re-established.

Under the Proposed RMP, impacts on soil resources resulting from implementing water management actions would be similar to those presented under Alternative A, except that restrictions near surface water sources would be specified as described under Alternative D, and permanent structures near water features would be allowed on a case-by-case basis. This would allow protection of soils near water features that align with BLM mitigation policies and the Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities, while providing flexibility to develop facilities and linear crossings on a case-by-case basis. Therefore, impacts from water management actions on soil resources under the Proposed RMP would be the same as Alternative D and would result in greater soil impacts near surface water sources than Alternative B, prohibiting surface disturbing activities and new structures and increasing restricted buffers near surface water sources.

Under the Proposed RMP, lands with wilderness characteristics would be managed for a variety of uses without specific management to protect wilderness characteristics. Lands with wilderness characteristics within the Salt Wells area may experience greater surface disturbance from multiple uses and, therefore, may have more impacts to soil than Alternatives A and B. Overall, not managing lands with wilderness characteristics would remove the potential beneficial impacts on soil resources described under Alternative B.

Impacts on soil resources from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, and the land use allocations would be the same as described under Alternative D. Under the Proposed RMP, more acres would be closed to fluid minerals (99% increase compared with Alternative A), and those that remain open would mostly be subject to NSO, CSU, and TLS stipulations to avoid or reduce impacts on soils. The Proposed RMP would result in additional acres available for fluid mineral leasing compared to Alternative B, with most acres subject to CSU and TLS. Therefore, the Proposed RMP would result in greater soil impacts from fluid mineral leasing and development than Alternative B.

Impacts on soil resources from locatable and saleable mineral development activities would be similar to those discussed under Alternatives A and D. The Proposed RMP would decrease the area in which soil resources could be affected by locatable mineral development activities and decrease the potential for soil exposure to wind and water erosion and subsequent soil degradation and loss, when compared to Alternatives A and D. However, the Proposed RMP would close fewer acres to salable mineral entry and provide fewer protections from indirect impacts on soil resources than Alternative A, but provide more protections than Alternatives B, C, and D.

Impacts on soil resources resulting from implementing VRM actions would be similar to those described under Alternative A, except that the number of acres designated as restrictive VRM Class II would increase by 71%. This more restrictive management would reduce surface disturbance under the Proposed RMP. Therefore, VRM actions would provide greater protections for soils resources compared to Alternative A.

Impacts on soil resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except that the extent of soil impacts from ROW activities would decrease, due primarily to a 68% increase in ROW exclusion areas compared to Alternative A. Similar to Alternative B, with the exception of “eligible but not designated” trails, the Proposed RMP alternative would only designate NHT corridors and remove all “eligible but not designated” trails within a 10-mile-wide buffer around designated trials from ROW exclusions. “Eligible but not designated” areas would be classified as ROW avoidance areas under the Proposed RMP and would provide more protection for soil resources from ROW authorizations when compared to management actions under Alternative A, but less than those under Alternative B.

The Proposed RMP would designate five Special Recreation Management Areas (SRMA) (138,605 acres), compared to six under Alternative A (298,110 acres) and none under Alternative B. As a result, the Proposed RMP would reduce the potential for recreation-related surface disturbances to impact soil resources when

compared to Alternative A, but would have a greater potential for impacts when compared to Alternative B. As under Alternative D, NSO restrictions would be placed on areas within ¼ mile of developed recreation sites, which would reduce the intensity and extent of surface disturbance in these areas and thereby result in fewer associated impacts on soil resources.

Impacts on soil resources from managing OHV use under the Proposed RMP would be the same as those presented under Alternative A, except the areas currently designated as "limited to existing roads and trails" (3,367,223 acres) would be "limited to designated roads and trails." This classification change would not yield a difference in impacts on soil conditions compared to Alternative A.

Impacts on soil resources from managing special-designation areas would be similar to those described under Alternative A, except that they would occur over more acres and thereby offer greater protections to important historic, cultural, wildlife, special status plants, and scenic values in these areas, as determined by the management area direction. The acreage designated in 12 ACECs under the Proposed RMP would increase to 935,135 acres (226% increase compared with 10 ACECs under Alternative A). Overall management of special designation areas under the Proposed RMP would limit surface disturbance to a greater extent than Alternative A by restricting the types of activities allowed in the areas and, therefore, providing indirect protection of soil resources. The Proposed RMP would have greater protection of soil resources through management of ACECs compared to Alternatives A, C, and D, but fewer protections than Alternative B.

# 4.5 WATER RESOURCES

## 4.5.1 Alternative B

Under Alternative B, water-related resources would have the least potential impacts on a broad scale, in comparison to the other alternatives.

Impacts to water resources from air quality management would be similar to those described under Alternative A. Under Alternative B, additional management for dust abatement could reduce sediment runoff and erosion, which could support water quality to a greater degree than Alternative A.

Under Alternative B, prohibiting surface disturbing activities in areas with limited reclamation potential soils would provide greater protections to water resources compared to Alternative A. These areas would be managed with NSO stipulations for fluid minerals, closed to mineral materials sales/disposals, and closed to all solid mineral leasing, which would provide additional protection to water resources. Additional soils management actions would provide further protections to water resources and could reduce soil loss, erosion, runoff, and the deposition of sediment, salts, pollutants, or excess nutrients into water bodies compared to Alternative A.

Under Alternative B, management for water resources, such as preventing or reducing surface disturbing activities, would provide greater protections to water when compared to Alternative A. Prohibiting the use of fire suppression chemicals within ¼ mile of surface water would provide protections to surface water resources by minimizing the amount of potential runoff of these chemicals into nearby water bodies, supporting water quality. Prohibitions for herbicide and pesticide loading, maintenance, and refueling areas would provide greater protections to water resources, as the prohibited area would be greater (¼ mile around water resources, floodplains, riparian areas, and special status plant locations, instead of 500 feet in Alternative A).

Water management actions that require hydrogeologic investigations to protect groundwater quality and prevent commingling of aquifers and obtaining legal protection of both consumptive and nonconsumptive water uses would help to maintain both surface and groundwater quality.

Managing lands with wilderness characteristics could prevent surface disturbance and protect water resources in these areas. Management would include closing these areas to fluid minerals, mineral material sales/disposal, all solid mineral leasing, mineral location, designating exclusion areas for all new ROWs, and VRM Class II. The management would provide greater protections to water resources by preventing associated surface disturbing activities and subsequent vegetation removal, soil erosion, and overland transport of excess sediment, salts, and nutrients into water bodies.

In areas open to fluid mineral leasing, impacts to water resources from allowing development of oil and gas within these lands with standard terms and conditions would be similar to those described under Alternative A. Under Alternative B, 2,186,218 acres would be closed to new fluid mineral leasing, an approximately 305% increase in acreage compared to Alternative A, and 813,354 acres would be managed as NSO, an increase of approximately 413% acres, compared to Alternative A. 99,674 acres would be managed as CSU (approximately 86% fewer acres than Alternative A) and 713,837 acres would have seasonal restrictions (approximately 61% fewer acres than Alternative A) (Map 2-7). The increased amount of land managed as closed or with NSO stipulations could provide greater protections to surface and groundwater resources in these areas, compared to Alternative A.

Under this alternative, 3,535,546 acres would be closed to coal leasing, exploration and development, and 2,122,282 acres would be closed to oil shale. This management would provide greater protections to water resources compared to Alternative A by reducing the amount of land that could be vulnerable to surface disturbance, vegetation removal, soil loss, erosion, and runoff of excess sediment, salts, pollutants, and nutrients into water bodies.

Under Alternative B, 1,993,908 acres would be pursued for withdrawal from locatable mineral entry. Impacts to water resources would be similar to those described under Alternative A, but would provide greater protection to water resources, as approximately 258% more acres would be withdrawn compared to Alternative A.

Impacts to water resources from saleable minerals management would be similar in kind, but less in extent, to those described under Alternative A. Under Alternative B, 2,581,741 acres would be closed to mineral material sales/disposals, an approximately 210% increase compared to Alternative A. Impacts would be reduced as surface disturbing activities associated with mineral material disposal, and subsequent erosion, sediment, nutrient, and salt transport to surface water bodies would occur in fewer acres of land compared to Alternative A.

Impacts to water resources from fuels and fire management would be similar to those discussed in Alternative A, except stricter stipulations on heavy equipment use and use of chemical fire suppressants could provide greater protections to water quality in these areas.

Impacts to water resources from forest and woodland resource management would be similar to Alternative A, except that additional management to reduce forestry on steep slopes, and reduced surface disturbance would provide more protections to water resources by maintaining vegetative cover and soil stability, thereby limiting excess sediment and nutrient transport to nearby surface water.

Vegetation treatment actions would have similar impacts as those discussed in Alternative A, but longer resting times for treated areas would likely provide greater protections to water resources in these areas as vegetation and soil would have a longer timeframe to establish and stabilize, thereby minimizing excess salt, sediment, and nutrient flow to water bodies. Prohibiting chemical applications, including herbicide and pesticide loading within ¼ mile, aerial application of chemicals within 2,640 feet, and vehicle and hand application of chemicals within 1,320 feet of wetlands, riparian areas, aquatic habitats and special status plants would provide greater protections to water resources in these areas by minimizing surface disturbance, chemical exposure, and maintaining water quality.

Impacts to water resources from fish and wildlife habitat management would be similar to those described under Alternative A. Management that would maintain or improve habitat, such as selective placement of water developments, would reduce surface disturbance in the vicinity of streams and water bodies resulting in improved riparian and soil conditions, and thus, more protections for water resources. However, surface disturbing activities such as vegetation treatments, removing and building fences, and water developments would result in short-term vegetation loss, which could cause localized erosion and sediment transport to nearby surface water. Applying seasonal surface disturbance restrictions would provide protections to water resources similar to Alternative A, but to a greater extent as the restrictions would cover the entire planning area.

Impacts to water resources from the management of special status plant species by applying NSO and closures would be similar to those described under Alternative A. Additional restrictions such as designating ROW exclusion areas would provide greater protections to water resources compared to Alternative A. Prohibiting use of fire chemicals, salt or mineral supplements, and range improvements within ¼ mile of special status plant species could indirectly protect water quality in these areas. Designating seasonal avoidance and limitations for surface disturbing activities in and near special status species' habitat would provide similar short-term protections to water resources as discussed in Alternative A. Under Alternative B, additional management such as closures and seasonal prohibitions of surface disturbing and disruptive activities could reduce the levels of vegetation removal, erosion, and excess sediment, salt, pollutant, and nutrient loading to surface water.

Protections to water resources from management of specific cultural resource sites would be similar to Alternative A, but to a greater extent as restrictions to mineral activities, including designating NSO and closed areas, would be over a larger area. Cultural resource management actions would include applying a CSU for fluid minerals, which would provide fewer protections to water resources for the specific areas, compared to Alternative A, as surface disturbing activities could still occur. Paleontological resource management activities would have the same impacts as discussed in Alternative A, but to a greater extent as mitigation requirements and additional NSO and closures for mineral sales and leasing would provide greater protections to water resources.

Impacts to water resources from VRM would be similar to those described in Alternative A, except that additional management would provide greater protections to water resources. Alternative B would have fewer VRM Class IV areas, and more VRM Class II areas. Approximately 2,148,902 acres would be managed as VRM Class II, a 269% increase of acres compared to Alternative A. Approximately 563,754 acres would be managed as VRM Class IV, which would be an approximately 74% reduction of acres compared to Alternative A, and thus the potential for impacts to water resources would be reduced.

Lands and realty management actions would be similar to Alternative A, except where additional lands are retained. Retention of public lands would result in the continued level of protections for water resources. Conversely, any potential disposal of lands would remove those protections from the affected lands.

ROW and corridor action impacts would be similar to Alternative A in areas open for ROW actions. Under this alternative, 2,480,876 acres would be designated as ROW exclusion areas, an approximately 481% increase in acres compared to Alternative A, and ROW avoidance acres would decrease by approximately 82%, to 133,903 acres. Exclusion areas would have less likelihood for surface disturbing activities than avoidance areas, and thus protections to water resources would be greater under this alternative, compared to Alternative A. Additional measures to co-locate pipelines, power lines, and other utilities adjacent to or within existing ROWs to reduce new surface disturbance would provide further protections to water resources.

Impacts to water resources from livestock grazing management would be similar to Alternative A. Under Alternative B, some areas would be prohibited or closed to livestock grazing. In these areas, reduced grazing pressure on vegetation would provide greater protections to water resources when compared to Alternative A.

Impacts to water resources from recreation management would be similar to those described under Alternative A; however, Alternative B would provide additional management which would protect water resources. The additional management would result in less surface disturbance, providing greater protections to water resources.

Impacts to water resources from OHV management would be similar to Alternative A, with 12,831 acres open, 225,537 acres closed (including in WSAs), and 3,367,576 acres limited to designated roads and trails. In areas where OHVs could cause considerable impacts upon soil, vegetation, or other resources, there would be less surface disturbance and reduced impacts to water resources, compared to Alternative A, as these areas would be immediately closed until adverse effects are eliminated.

Impacts to water resources from the management of NHTs, WSAs, and WSRs would be the same as those described under Alternative A. Impacts to water resources from the management for ACECs would be similar to Alternative A, but 1,605,660 acres would be managed as ACECs under Alternative B. Additional stipulations that close, exclude, restrict, or prohibit surface disturbance and surface disturbing activities would provide further protections to water resources compared to Alternative A.

### 4.5.2 Alternative C

Impacts to water resources from the management of soil resources would be similar in type to those described under Alternative A. The management would provide greater protections to water resources compared to Alternative A by reducing surface disturbing activities associated with mineral activities in these areas. The preparation of site-specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) would provide similar protections to water quality resources as described in Alternative A, where implemented. These plans would not be required in all areas, and where not required, water quality resources could receive lesser protections, compared to Alternative A.

The emphasis on development of mineral resources under Alternative C would result in larger amounts of surface disturbance and related potential impacts to water resources than the other alternatives. State and federal water quality standards would still apply.

Water quality management actions would have impacts similar to those discussed in Alternative A. Prohibiting salt or mineral supplements near surface water would provide protections to water resources similar to those discussed in Alternative B, but to a lesser extent as the prohibited area is smaller (100 feet of surface water, compared to 2,640 feet in Alternative B). Prohibiting the use of fire suppression chemicals would provide similar protections to surface water compared to Alternative B, but to a lesser extent as the prohibited area would be smaller (within 100 feet from surface water, compared to 1,320 feet in Alternative B).

Under Alternative C, all lands identified as having wilderness characteristics would not be managed to protect those characteristics. This management could result in more surface disturbing activities compared to Alternative B. Not managing lands with wilderness characteristics could result in a loss of vegetation, destabilized soils, and additional flow of salt, sediment, pollutants, and nutrients to water bodies.

Under Alternative C, 225,782 acres would be closed to new fluid mineral leasing (a decrease in acreage of approximately 58% compared to Alternative A), and 15,542 acres would be managed as NSO, also a decrease in acreage of approximately 90% compared to Alternative A. Approximately 215,890 acres would be managed as CSU (approximately 70% fewer acres than Alternative A) and 1,355,485 acres would have seasonal restrictions (an approximately 26% decrease in acres compared to Alternative A) (Map 2-8). The decrease in acres designated as closed, NSO, CSU, and seasonally restricted would provide less protection to soils, compared to Alternative A. However, use of BMPs and required mitigation measures could help to reduce the extent of these impacts to water resources.

Impacts to water resources from coal and oil shale leasing and development would be very similar to those described in Alternative A. Under Alternative C, 226,219 acres would be closed to coal leasing, 259,745 fewer acres than Alternative A, and 225,965 acres would be closed to oil shale leasing, 501,840 fewer acres than Alternative A. The smaller areas that would be closed to coal and oil shale leasing could result in increased impacts to water resources from surface disturbance, vegetation removal, soil erosion, and runoff of sediment, salts, pollutants, or nutrients into surface water, which could degrade water quality to a greater degree than Alternative A.

Impacts to water resources from locatable and saleable mineral development would be similar to those described under Alternative A. Under Alternative C, locatable minerals would be proposed for withdrawal on 234,961 acres (approximately 58% fewer acres than Alternative A), resulting in greater potential for impacts to water resources in these areas from related surface disturbing activities. Saleable minerals would be closed within 226,421 acres, 607,298 fewer acres and a 73% decrease compared to Alternative A. The smaller areas available for mineral development could result in increased impacts to water resources from surface disturbance; vegetation removal; soil erosion; and runoff of sediment, salts, pollutants, or nutrients into surface water, which could degrade water quality to a greater degree than Alternative A.

Impacts to water resources from fuels and fire management would be similar to those discussed in Alternative A, except stricter stipulations on heavy equipment use could provide more localized protections to water resources in these areas.

Overall, impacts to water resources from forest and woodland management actions would likely increase compared to Alternative A, as woodlands would be managed to provide forest and woodland products to the public, rather than protections to resources. Clear-cutting and thinning would be allowed in more areas which could result in greater impacts to water resources in both the short-term and long-term, compared to Alternative A.

Impacts to water resources from the management of vegetation resources, including management actions that would maintain, improve, or restore riparian habitat, including achieving proper functioning condition (PFC), and removing or reducing livestock grazing in riparian areas, would have similar impacts as those discussed in Alternative A. Prohibitions to pesticide and herbicide applications would have similar impacts as those discussed in Alternative B, but to a lesser extent, as the prohibited areas would be smaller (100 feet instead of 2,640 feet for aerial application, and 25 feet by vehicle or 10 feet by hand application, compared to 1,320 feet under Alternative B) and water resources could be more vulnerable to contamination.

Impacts to water resources from habitat management actions for fish and wildlife would be similar to those discussed in Alternative A. Under Alternative C, fewer restrictions for habitat protection would likely result in greater surface disturbance, vegetation removal, and subsequent erosion and sediment transport to nearby water bodies.

Impacts to water resources from special status species management would be similar to Alternative A. Avoidance areas for surface disturbing activities in areas with special status plant species could provide protections to water resources, but not to the extent described Alternative A. Under this alternative, some areas restricted in Alternative A would have no restrictions in place; these areas would likely have greater impacts to water resources from more surface disturbing activities, compared to Alternative A. Prohibiting use of fire suppression chemicals, including foaming agents and surfactants, salt and mineral supplements, and range improvements within 100 feet of special status plant species populations would provide protections similar to Alternative B, but to a lesser extent as the prohibited area would be smaller (100 feet instead of ¼ mile).

Management actions for cultural resource sites that restrict or prohibit surface disturbing activities would provide similar protections to water resources as discussed in Alternative A. However, designation of additional ROW

exclusion areas could provide greater protections to water resources, compared to Alternative A. Impacts to water resources from paleontological resource management would be the same as those discussed in Alternative A.

Under Alternative C, 607,899 acres would be managed as VRM Class II, which would be 25,227 more acres than under Alternative A. This increase in VRM Class II acreage would be approximately 4%, which could result in greater protections to water resources. Approximately 395,683 acres would be managed as VRM Class III, a decrease of 219,809 acres compared to Alternative A; and 2,374,706 acres would be managed as VRM Class IV, an increase of 194,283 acres compared to Alternative A. The increase of VRM Class IV could result in greater impacts to water resources from surface disturbance; vegetation loss; erosion; and runoff of sediment, salts, pollutants, or excess nutrients.

Impacts to water resources from lands and realty management would be similar to those described in Alternative A, except retention of public lands would result in the continued level of protections for water resources. ROW exclusion areas would decrease by approximately 47% compared to Alternative A, to 225,784 acres, and ROW avoidance areas would decrease by approximately 96%, to 31,018 acres. These reductions in exclusion and avoidance areas would provide fewer protections to water resources, compared to Alternative A. ROW management actions that co-locate utilities and required mitigation measures would provide similar protections to water resources as discussed in Alternative B.

Impacts to water resources from livestock grazing management would be similar to Alternative A, except larger areas of land would be open to livestock grazing, compared to Alternative A. Areas that would be open to grazing under this alternative could experience increased localized impacts to water resources. Soil compaction and loss of vegetative cover from increased grazing could result in reduced soil infiltration, increased runoff, and sedimentation of surface waters.

Impacts to water resources from recreation management would be similar to Alternative A, but to a larger extent. The development of permanent recreation sites and facilities in undeveloped recreation use areas would be allowed, which would provide fewer protections to water resources, compared to Alternative A. Surface disturbing activities would be permitted within ¼ mile of developed recreation sites and trails, which would provide fewer protections to water resources compared to Alternative A.

Impacts to water resources from OHV area designations would be similar to Alternative A, as 13,332 acres would be managed as open, 225,537 acres would be managed as closed, and 3,365,374 acres limited to designated roads and trails. Of these designated routes, 16,256 miles would be open, 427 miles would be closed, 93 miles would be limited, and 165 miles would be designated as transportation linear disturbance. Impacts to water resources from route designations would be similar to those described under Alternative B, but many more miles of routes would be open to OHV use which would result in increased erosion, vegetation loss, soil compaction, and sediment, salt, pollutant, or nutrient runoff into nearby waterbodies when compared to Alternative B.

Impacts to water resources from special designations, WSAs, and WSR management would be similar to Alternative A, except the wild portion of the Sweetwater River would be revoked, which would reduce protections to water resources in this area compared to Alternative A. No ACECs would be designated or retained under this alternative, which would likely reduce protections to water resources in these areas. Under Alternative C, localized surface disturbance could occur, which could lead to increased erosion and sediment to flow to nearby surface water.

### 4.5.3 Alternative D

The impacts on water resources resulting from implementing actions associated with the management for air quality, fire and fuels, forests and woodlands, fish and wildlife, special status species, cultural resources, paleontological resources, and livestock grazing would be similar to those presented under Alternative A.

Impacts to water resources from implementing soil management actions would be similar to those identified under Alternative A. Areas with limited reclamation potential soils (those with limited reclamation potential as per the NRCS soil rating) would be designated avoidance areas for surface disturbing activities, which would reduce the extent of surface disturbing activities in these areas and thereby reduce associated impacts to water resources. However, an operator must submit an approved mitigation plan before a proposed project on limited reclamation potential soils will be approved. This could provide a greater degree of protection to water resources compared to Alternative A, as similar plans would be required under Alternative A only when deemed applicable.

The impacts on water resources resulting from implementing water management actions would be similar to those presented under Alternative A, except two additional provisions under Alternative D would provide greater protection to water resources. Impoundment ponds, reserve pits, and evaporation ponds that could result in the contamination of sensitive water resources would be avoided or mitigated. This would serve to ensure that such ponds/pits do not pose a threat to surface and groundwater resources, which would further help to maintain or improve water quality. The second additional provision would require hydrogeologic investigations where there is a reasonable expectation that surface water features are connected with aquifers and geologic formations that are potentially impacted by BLM authorized activities. This would help to protect groundwater resources by informing surface users of the connection to groundwater sources and would provide additional protections compared with Alternative A because this requirement would be applied across the entire planning area (versus only the Jack Morrow Hills [JMH] Area).

The impacts to water resources from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except stipulations that prohibit fluid mineral leasing and surface occupancy would be applied to a smaller area. Under Alternative D, 768,989 acres would be closed to fluid mineral leasing (42% increase compared with Alternative A) and 2,172 acres would be managed with NSO stipulations (99% decrease compared with Alternative A) (Table 2-4 in Appendix V, Map 2-9). Managing more areas that are closed to fluid mineral leasing or fewer areas with NSO stipulations would result in increased surface disturbance and related impacts to water resources.

The impacts on water resources from solid leasable mineral development activities would be similar to those presented under Alternative A, except the area in which coal and oil shale development are prohibited would be increased to 610,342 acres (26% increase compared with Alternative A) and 1,557,520 acres (114% increase compared with Alternative A), respectively (Table 2-7 in Appendix V, Map 2-14). This would decrease the area in which water resources could be impacted by coal and oil shale development activities.

The impacts on water resources from locatable and saleable mineral development activities would be similar to those presented under Alternative A. Under Alternative D, the lands closed to saleable mineral development would be decreased to 362,009 acres (57% decrease compared with Alternative A) (Table 2-8 in Appendix V, Map 2-19) and lands proposed for withdrawal from locatable mineral entry would be decreased to 482,272 acres (13% decrease compared with Alternative A) (Table 2-3 in Appendix V, Map 2-4). This would increase the potential for surface disturbance and related vegetation removal, soil erosion, and sedimentation and degradation of water resources.

The impacts on water resources from managing vegetation resources would be similar to those presented under Alternative A. Under Alternative D, prescribed fire would not be the preferred method for vegetation treatments as it is under Alternative A. However, because all the vegetation treatment types are available under Alternative D, the impacts on water resources would be essentially the same.

The impacts on water resources resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be increased to 1,178,718 acres (103% increase compared with Alternative A) (Table 2-9 in Appendix V, Map 2-24), which could lead to decreased surface disturbances and related impacts on water quality. Increasing the area managed as VRM Class

II would increase the area in which development is restricted in order to be consistent VRM Class II objectives. This, in turn, could reduce the overall level and intensity of development and decrease the potential for surface disturbance and related vegetation removal, soil erosion, and sedimentation and degradation of water resources.

The impacts on water resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be increased. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres (33% decrease compared with Alternative A) (Table 2-10 in Appendix V, Map 2-29), which would decrease the area in which ROW development activities are prohibited. This would increase impacts on water resources from ROW development in these areas and could lead to an overall increase of such development across the planning area, thereby increasing the potential for degradation of water quality.

The impacts on water resources from managing recreation resources would be similar to those presented under Alternative A, except the areas designated as SRMAs would be decreased to 135,549 acres (55% decreased compared to Alternative A) (Table 2-12 in Appendix V, Map 2-39), which could decrease intensive recreational activities in the former SRMAs and thereby decrease associated impacts to water resources.

The impacts on water resources from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as "limited to existing roads and trails" (2,398,839 acres) would be changed to "limited to designated roads and trails" and all routes within this area would be designated as open, closed or limited.

The impacts on water resources from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a smaller area and thereby offer fewer protections to important historic, cultural, wildlife, and scenic values in areas that were formerly special designations. This, in turn, could increase surface disturbing activities and related impacts on water resources. The acres designated as ACECs would be decreased to 246,634 acres (14% decrease compared with Alternative A).

### 4.5.4 Proposed RMP

The Proposed RMP is a combination of management actions, primarily from Alternatives B and D, that would place emphasis on minimizing surface disturbing activities with potential to impact water resources. As a result, the Proposed RMP would generally result in impacts to water resources at levels similar to those previously described under Alternatives B and D.

Impacts on water resources from actions associated with the management for air quality, fish and wildlife, special status species, cultural resources, paleontological resources, fire and fuels, solid leasable minerals, and livestock grazing would generally be the same as those presented under Alternative A. Impacts on water resources from actions associated with the management for recreation and visual resources would be the same as those presented under Alternative D.

Similar to Alternative D, soil management actions under the Proposed RMP are generally designed to reduce erosion, improve water quality, improve bank stability, and restore wetland and riparian areas. Impacts on water resources from soil management actions would be similar to those identified under Alternative A, except for surface-disturbing activities and salinity control measures, which would be the same as Alternative D and offer more protection to water resources when compared to Alternative A. Within the JMH planning area, the BLM would continue to participate with federal, state, and local governmental agencies to develop and implement salinity control plans for the Colorado River Basin and maintain existing and future applicable water quality plans, which is the same as Alternative B and would result in a reduced potential for water quality impacts when compared to Alternative A. Similar to Alternative D, the Proposed RMP would also implement plans that are site

specific on a case-by-case basis, incorporate BMPs, and enhance water quality actions, further protecting water resources.

Impacts on water resources from management of vegetation resources would be similar to those presented under Alternative A and would be implemented in accordance with the guidelines in Appendix A, except where vegetation treatments can improve water quality and reduce erosion. Under the Proposed RMP, the use of mechanical, chemical, and biological control methods (including prescribed fire and livestock grazing) would result in the same potential for indirect impacts on water resources as Alternatives A and D, and greater impacts than actions proposed under Alternative B. The prohibitions to pesticide and herbicide applications under the Proposed RMP would have similar impacts as those discussed in Alternative C.

Like Alternative D, the Proposed RMP would implement restrictions on the placement of permanent facilities and linear crossings within floodplains, wetlands, riparian areas, and perennial streams but would result in fewer protections than Alternative B, which would prohibit any new surface-disturbing activities within the areas. The Proposed RMP would allow for linear crossings on a case-by-case basis if a site-specific analysis were conducted by a BLM Authorized Officer (AO) and if there were a determination of no adverse impact.

Impacts on water resources from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except that stipulations prohibiting fluid mineral leasing and surface occupancy would be applied to a larger area. Under the Proposed RMP, 1,076,039 acres would be closed to fluid mineral leasing (99% increase, compared with Alternative A), and 215,437 acres would be managed with NSO stipulations (36% increase, compared with Alternative A) (Table 2-4 in Appendix V). Similar to Alternative D, the Proposed RMP would avoid subsurface mineral activity in identified aquifer-recharge areas in the towns of Superior and McKinnon, designating these locations as ROW avoidance areas. Additionally, the Proposed RMP would allow for increased CSU restrictions for fluid minerals (1,116,266 acres) to reduce impacts on these important local water resources.

Impacts on water resources from locatable minerals and saleable minerals would be similar to those under Alternative A, except that the Proposed RMP would close slightly more acres to salable mineral entry (51,187 more acres than Alternative A) and pursue additional acres for withdrawal for locatable minerals (343,646 more acres than Alternative A). Compared to Alternative A, this would decrease the potential for surface disturbance and related vegetation removal, soil erosion, and sedimentation and degradation of water resources, although not to the extent as the more-restrictive management actions under Alternative B. Similar to Alternative D, saleable mineral pits that are no longer in use would be reclaimed, which would have a long-term positive impact on water resources.

Unlike Alternatives A, B, and D, the Proposed RMP would not require hydrogeologic investigations in areas where surface water features are expected to be connected to aquifers that could be impacted by BLM-authorized activities, potentially reducing surface and groundwater quality by collecting less information that could otherwise inform mitigation measures. Other activities and related impacts within aquifer recharge areas would be the same as those described under Alternative D, which are aimed at protecting groundwater quality and maintaining a healthy aquifer recharge area.

The impacts on water resources resulting from most forest management actions would be similar to Alternative D and would improve vegetative health across the forest landscape, reduce erosion potential, and improve water quality. Similar to Alternative B, the Proposed RMP would prohibit clear-cut harvesting and limit logging operations on slopes steeper than 25% (unless technological, environmental, and economic methods are available and approved), which would result in further increases to soil stability and greater protection of water resources than Alternatives A and D.

Under the Proposed RMP, impacts on water resources resulting from lands and realty actions to protect fish and wildlife habitats would be the same as those of Alternative D, and would allow for greater flexibility of land exchanges of equal or greater value along aquatic and riparian habitats, when compared to Alternative A.

Impacts on water resources from implementing ROW management would be similar to those presented under Alternative A, except that the extent of the impacts would be decreased. Under the Proposed RMP, 921,059 acres would be designated as ROW exclusion areas, an approximate 116% increase compared to Alternative A, but a 63% decrease compared to Alternative B. ROW avoidance areas (1,047,929 acres) would increase by approximately 42% and 683%, when compared to Alternatives A and B, respectively. As described under Alternative B, exclusion areas would have less likelihood for surface-disturbing activities than avoidance areas; thus, protections for water resources would be greater under the Proposed RMP compared to Alternative A and reduced compared to Alternative B.

The impacts on water resources from managing special designation areas would be similar to those presented under Alternative B, except that approximately 648,665 fewer acres would be designated as ACECs under the Proposed RMP. Similar to Alternative D, allowances would be made for the installation of structures designed to reduce sediment, siltation, or erosion. Overall, the Proposed RMP would provide greater protection for water resources through the management of ACECs than Alternatives A, C, and D, but provide fewer protections than Alternative B.

Like Alternative B, the Proposed RMP would give further consideration or inclusion in the WSR system to the seven BLM-administered public land parcels along the Sweetwater River (involving about 9.7 miles of the river), which would offer greater protection for water resources in this area and positively impact the river and riparian ecosystems.

# 4.6 VEGETATIVE COMMUNITIES

## 4.6.1 Alternative B

Impacts to vegetation from watershed management would be the same as those under Alternative A. In addition, increased restrictions on surface disturbing activities and larger buffer zones around riparian areas and floodplains would provide greater protections to riparian vegetation. Water developments for diversion from springs or seep sources could reduce surface disturbances from grazing and wildlife around springs and seeps by redistributing them around the diversions. Prohibiting the use of fire suppression chemicals within 1,320 feet (¼ mile) of surface water would protect vegetation and water quality from these chemicals within wetland and riparian habitat. Prohibiting salt blocks and other nutritional supplements within 2,640 feet (½ mile) of surface water sources, riparian areas, and wetlands could distribute livestock use of vegetation and reduce impacts on vegetation along water sources.

Impacts to vegetation from managing lands identified as having wilderness characteristics would provide increased protection to vegetation resources in these areas. Lands would be pursued for withdrawal from locatable mineral entry or closed to mineral material sales and solid mineral leasing which would prevent or reduce surface disturbing activities. Vegetation resources could remain intact, soils would remain stable, and the introduction and spread of invasive, non-native plant species would be less likely to occur.

Impacts to vegetation from oil and gas leasing would be similar to those described under Alternative A, but under Alternative B, more acres of habitat would be protected from surface disturbance due to fluid mineral leasing (Table 2-4 in Appendix V). Based on Table 4-7 in Chapter 4, Alternative B would close approximately 71,766 acres (46%) of grasslands to oil and gas leasing and apply NSO stipulations to 22,665 acres (15%) of grasslands. Alternative B would close approximately 1,296,074 acres of sagebrush to oil and gas leasing (59%) and apply

NSO stipulations to 282,094 acres (13%) of sagebrush. The management under Alternative B would close approximately 73,144 acres of riparian vegetation to oil and gas leasing (50%) and apply NSO stipulations to 16,810 acres of riparian vegetation (11%); and would close approximately 28,488 acres of aspen/conifer to oil and gas leasing (69%) and apply NSO stipulations to 1,341 acres of aspen/conifer vegetation (3%).

Withdrawing 1,993,908 acres to locatable mineral entry and closing 2,581,741 acres to saleable mineral development could benefit vegetation. The decreased levels of mineral development proposed under Alternative B would result in reduced vegetation disturbance and a lower potential for weed invasion compared to Alternative A.

Impacts to vegetation resources from wildland fire and fuels management would be similar to Alternative A, except wildfires could be allowed to persist in lands that would benefit from fire. This alternative would require less fire line construction and other surface disturbance, which would reduce disturbance and removal of vegetation and limit areas where invasive non-native plant species could occur.

Impacts to vegetation from forest and woodland management would be similar to those described under Alternative A; however, Alternative B emphasizes the use of natural processes for forestry management in addition to not allowing clearcutting. The management in Alternative B would support forest and woodland habitat by encouraging natural habitat conditions, native vegetation, cover, forage, and functional ecosystems.

Vegetation management under Alternative B would support vegetation resources to a greater degree than under Alternative A. The additional management would result in riparian vegetation that consists of mid- to late-seral-stage communities with a mixture of herbaceous and multi-aged woody species. Other effects would include increased vegetation production, increased diversity, and a more stable riparian plant growth medium. Vegetation treatments would be designed to re-establish the natural role of fire in the ecosystem. This would result in lower-seral plant communities with less woody species. Impacts of noxious weed infestations on vegetation resources would be less than under Alternative A because of an anticipated decrease in access and activities that would introduce or aid in spreading the species in the planning area.

Impacts to vegetation from invasive species and pest management would be similar to those described under Alternative A. Additional management for invasive plant species control would protect vegetation and surrounding soils from damage from more invasive control methods, such as chemicals or fire. However, less invasive techniques may not be as effective in controlling large infestations of noxious weeds as would chemicals or fire. Under Alternative B, additional management for preventing and controlling the infestation of aquatic invasive species could support wetland and riparian vegetation. The management would help prevent the infestation of riparian and aquatic habitat from non-native species, which would help maintain and protect native ecosystems.

Impacts to vegetation from the management of wildlife, fish, and special status species habitat would be similar to Alternative A. Additional management under Alternative B could help maintain or improve conditions for plants by preventing soil compaction, erosion, sedimentation, and the influx of nutrients into riparian areas, wetlands, or streambeds which could support the health and vitality of vegetation resources in these areas. Wildlife and fisheries objectives would be addressed during reclamation activities, which would influence the plant seed mix selection used in reclaimed areas. Impacts on vegetation from surface-disturbing activities would not occur within certain wildlife buffers, which would help to retain a native vegetation composition. Managing important waterfowl areas for preferred waterfowl habitat would benefit riparian and wetland vegetation.

Under Alternative B, 225,736 acres would be managed as VRM Class I, 2,148,902 acres would be managed as VRM Class II, 666,522 acres would be managed as VRM Class III, and 563,754 acres would be managed as VRM Class IV. This management would protect larger areas of land from surface disturbance and vegetation loss to a greater degree when compared with Alternative A.

The increased restrictions placed on livestock grazing activities under this alternative would likely support vegetation resources to a greater degree when compared to Alternative A. Closing all exclosures within the planning area to livestock grazing and suspend AUMs currently authorized in these exclosures would allow the forage in the exclosure area a chance to regrow.

Impacts from OHV management would be similar to Alternative A; however, a reduced amount of the area would be open to OHV use, so the likelihood of impacts would be less than Alternative A. Opening 12,831 acres to OHV use could result in the introduction or spread of invasive, non-native plant species, which could alter or destroy native vegetation and ecosystems. Closing routes to OHV use (225,537 acres) would help prevent these impacts to vegetation. Restricting vehicular travel would prevent damage to vegetation from vehicles; prevent soil loss, erosion, and runoff to riparian habitat. Under this Alternative, 3,367,576 acres of OHV use would be limited to designated roads and trails. Alternative B is only limited to designated roads and trails while Alternative A has areas limited to existing roads and trails.

Management of 2,480,876 acres of ROW exclusion and 133,903 acres of avoidance areas could prevent or reduce surface disturbance and vegetation loss through an increase of lands managed as exclusion areas compared to Alternative A.

Alternative B would apply greater protection for vegetation resources within Special Designations/Management Areas (SD/MA). Impacts to vegetation resources would be similar to those described under Alternative A; however additional management would protect vegetation from disturbance associated with roads, oil and gas activity, locatable mineral activity, logging, and OHV use.

River segments that have been identified as eligible for WSR designation (9.7 miles) would have greater restrictions relating to stream impoundments, vehicle crossings, diversions, channelization, or rip-rapping compared to Alternative A. These would limit projects in these river segments and thereby protect upland and riparian vegetation from surface disturbing activities.

Under Alternative B, WSAs (Map 2-37, 227,960 acres) would be managed to maintain suitability for preservation as wilderness. This would maintain or improve soil and water resources by limiting surface disturbance that could contribute to erosion and non-point sources of sediment and other pollutants. The BLM Manual 6330 for WSAs prohibits or restricts motorized equipment use, which would limit vegetation and weed treatment options in these areas. Dispersed hiking and equestrian use could increase the potential for the introduction or spread of noxious and invasive weeds.

SRMAs would not be retained, instead some areas will be managed as ACECs.

Actions related to special management areas (1,605,660 acres of ACECs) could have a greater beneficial impact on vegetation resources under this alternative. Management actions associated with the addition of the paleosol deposition area to the Greater Sand Dunes ACEC, the face of Steamboat Mountain, and the area where elk crucial habitat and birthing areas overlap to Steamboat Mountain ACEC, would benefit rare and sensitive plant communities through further restrictions on activities within these sensitive areas. Management actions associated with designating special status plant species habitat and the cushion plant community as ACECs, and designation of the new Pinnacles ACEC, would also benefit and protect these communities from disturbance.

## 4.6.2 Alternative C

Impacts to vegetation from the management of riparian and wetland resources would be the same as those described under Alternative A. Impacts resulting from management of air quality, soils and geology, cultural resources, fire and fuels management, vegetation, and lands and realty would be similar to Alternative A. In

general, this alternative would result in the greatest level of surface disturbance and vegetation loss due to less restrictive management actions.

The effects of watershed management actions would be the same as those of Alternative A, except these beneficial impacts would be reduced because of fewer restrictions on surface disturbing activities and smaller buffer zones around riparian areas and floodplains.

Under Alternative C, a larger portion of the planning area would be open to surface disturbing activities, including locatable mineral exploration and development and mineral material sales compared to Alternative A. Impacts to vegetation communities are expected to be greater than under Alternative A because of the increased amount of area available to development.

Impacts from oil and gas leasing and development would be similar to those described under Alternative A; however, smaller areas of habitat would be closed or have NSO stipulations, which could allow for greater loss of vegetation from development activities (Table 4-7 in Chapter 4). The management under Alternative C would close approximately 8,105 acres (5%) of grasslands to oil and gas leasing and apply NSO stipulations to 1,877 acres (1%) of grasslands; close approximately 48,968 acres of sagebrush to oil and gas leasing (2%) and apply NSO stipulations to 61,505 acres (3%) of sagebrush; close approximately 10,081 acres of riparian vegetation to oil and gas leasing (7%) and apply NSO stipulations to 2,230 acres of riparian vegetation (2%); and close approximately 499 acres of aspen/conifer to oil and gas leasing (1%) and apply NSO stipulations to 166 acres (0.4%) of aspen/conifer vegetation.

Impacts to vegetation from closing 226,421 acres to saleable mineral development and withdrawing 234,961 acres of lands from mineral location, 72% and 58% fewer acres respectively compared to Alternative A, could increase vegetation loss or damage to habitat. The management under Alternative C would allow more surface disturbance, damage, or removal of vegetation, soil loss, and the introduction or spread of invasive, non-native plant species.

Impacts to vegetation from wildland fire management and forest and woodland management would be the same as those described under Alternative A. Under Alternative C, allowing the harvest of cottonwood trees could remove critical components of riparian vegetation and degrade the overall ecosystem. The removal of large trees could lead to erosion and streambank degradation, which could continue in harvest areas until new vegetation was established.

Impacts to vegetation resources from the management of grassland and shrubland communities would be very similar to those described under Alternative A. Use of non-native species could help stabilize soils and prevent erosion in the short-term, and over the long-term could provide stable land for native species to re-establish. However, some non-native plants may out compete native species and alter the composition of the ecosystem, which could degrade overall vegetation health. The use of non-native plants could increase the risk of spread and possible degradation of native habitat values.

Impacts to vegetation resources from invasive species and pest management would be similar to those described under Alternative A. Additional management for invasive plant species control through various methods, including chemicals, the use of BMPs, and buffer distances for chemical use could reduce the infestation and spread of invasive species to a greater degree than Alternative A. The management would help prevent the infestation of non-native species, which would help maintain native vegetation and ecosystems. Management to protect special status plants, wetlands, riparian areas, and aquatic habitats through buffers for chemical use would prevent accidental application or spills and protect vegetation from accidental contact with herbicides.

Impacts to vegetation from the management of wildlife, fish, and special status species would be similar to Alternative A, and impacts would be similar to those described under Alternative A. Additional management under Alternative C by prioritizing livestock and allowing more areas to be open to livestock could increase

competition for forage and habitat resources. Increased use by livestock could cause loss of vegetation, soil compaction, erosion, trampling of vegetation, and the spread of invasive, non-native plant species.

Impacts to vegetation resources from the management of visual resources would be very similar to those described under Alternative A. Management for VRM Class I would be 226,629 acres, 912 more acres than Alternative A; VRM Class II would be 607,899 acres, 25,227 more acres than Alternative A; VRM Class III would be 395,68 acres, 219,809 fewer acres than Alternative A; and VRM Class IV would be 2,374,706 acres, 194,283 more acres than Alternative A. There would be slightly more acres protected by VRM Classes I and II, but nearly 200,000 more acres subjected to surface disturbing and disruptive activities within VRM Class IV compared to Alternative A.

Impacts to vegetation from the management of 225,784 acres as ROW exclusion areas would be similar to those described under Alternative A. Under Alternative C, approximately 200,925 fewer acres would be managed as ROW exclusion areas, which could allow more vegetation loss and surface disturbance from the development of ROWs. Additionally, under Alternative C only 31,018 acres would be managed as ROW avoidance area, 705,120 fewer acres than under Alternative A. This management would further allow for vegetation loss and surface disturbance from the development of ROWs than the management activities proposed under Alternative A.

Livestock grazing management actions under this alternative could have greater impacts on vegetation resources than described under Alternative A. Together with forage use by big game species; this would further increase grazing pressure on vegetation resources, potentially affecting long-term productivity of vegetation. Less restrictive measures for range improvements, water developments, and salt and mineral placement could limit protections on vegetation resources. Full implementation of these management actions could cause difficulty in allotments meeting the Wyoming Land Health Standards. Reducing total authorized use to highest level of billed use over the last 10 years could provide increased vegetation resources for big game and other wildlife species. Reducing livestock use to 160,387 AUMs could reduce vegetation loss from livestock use, potentially increasing long-term productivity of vegetation. However, because management of livestock under this alternative would be very similar to the levels of actual use that have historically occurred in the planning area, it is likely that few changes would occur beyond those described under Alternative A.

Under Alternative C, the management of SRMAs (592,800 acres) could help protect, maintain, or enhance vegetation resources. Visitor use and access is promoted in SRMAs, which could increase popularity and visitation, resulting in increased vegetation disturbance from trampling and increased potential for weed introduction and spread of non-native, invasive plant species.

The effects of OHV use and other recreational activities would be greater and occur over more of the area under this alternative than compared to Alternative A. A larger area of land open to OHV use could allow for increased vehicle and associated human activity.

Under this alternative, no areas would be designated as ACECs and special management areas would not be retained. This would allow more surface disturbance, potentially reducing protection of vegetation resources.

### 4.6.3 Alternative D

Impacts on vegetation resulting from implementing management actions for air quality, water resources, fish and wildlife, special status species, cultural resources, paleontological resources, and livestock grazing would the same as those presented under Alternative A. The impacts on vegetation from managing fire and fuels and forests and woodlands would be the same as those presented under Alternative B.

Impacts on vegetation from implementing soil management actions would be similar to those identified under Alternative A. Areas with limited reclamation potential soils (those with limited reclamation potential as per the

NRCS soil rating) would be designated avoidance areas for surface disturbing activities, which would reduce the extent of surface disturbing activities in these areas and thereby reduce the intensity and extent of vegetation removal and degradation of vegetation communities. However, an operator must submit an approved mitigation plan before a proposed project on limited reclamation potential soils will be approved. This could provide a greater degree of protection to vegetation resources compared to Alternative A, as similar plans would be required under Alternative A only when deemed applicable.

Impacts on vegetation from managing lands with wilderness characteristics could be increased compared to Alternative B. Under Alternative D, lands with wilderness characteristics would be managed for a variety of uses with only consideration of those characteristics. Such management could allow some development activities within these areas. These areas would not be closed to mineral development as they would be under Alternative B, which would increase the potential occurrence of surface disturbing activities within the nine lands with wilderness characteristics. Such activities would result in removal and damage to vegetation resources, which would degrade the overall health of vegetative communities.

Impacts on vegetation from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except stipulations that prohibit fluid mineral leasing would be applied to fewer acres (Table 2-4 in Appendix V). Based on Table 4-7 in Chapter 4, under Alternative D approximately 31,240 acres (20%) of grasslands would be closed to oil and gas leasing and 1,961 acres (1%) would be managed with NSO stipulations; 189,122 acres (8%) of sagebrush would be closed to oil and gas leasing and 53,718 acres (2%) would be managed with NSO stipulations; 36,084 acres (22%) of riparian vegetation would be closed to oil and gas leasing and 983 acres (1%) would be managed with NSO stipulations; and 21,586 acres (22%) of aspen/conifer vegetation would be closed to oil and gas leasing and 57 acres (1%) would be managed with NSO stipulations.

Under Alternative D, withdrawing 482,272 acres to locatable mineral entry would apply to 13% fewer acres compared to Alternative A, resulting in impacts very similar to those described under Alternative A but more acres would be affected. Impacts to vegetation resources from closing 362,009 acres to saleable mineral development would be similar to those described under Alternative A; however, a 57% reduction in closed areas could allow for larger areas of vegetation damage or removal when compared to Alternative A.

Impacts on vegetation from managing vegetation resources would be similar to those presented under Alternative A. Under Alternative D, prescribed fire would not be the preferred method for vegetation treatments as it is under Alternative A. However, because the vegetation treatment types are available under Alternative D, the impacts on vegetation resources would be essentially the same.

Impacts on vegetation resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be increased to 1,178,718 acres (102% increase compared with Alternative A) (Table 2-9 in Appendix V, Map 2-24), which could lead to decreased vegetation removal and degradation when compared to Alternative A.

Impacts on vegetation resulting from implementing lands and realty actions would be similar to those presented under Alternative A. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres (33% decrease compared with Alternative A) (Table 2-10 in Appendix V, Map 2-29). More acres would be managed under ROW avoidance areas, 1,388,618 acres, compared to 736,138 acres under Alternative A. ROW avoidance areas could provide some additional protection to vegetation resources compared to lands that are open to ROW development.

Impacts on vegetation from managing recreation resources would be similar to those presented under Alternative A. Fewer SRMAs would be retained under Alternative D which could reduce the level of protection to vegetation resources from protective management within the SRMAs not carried forward from Alternative A.

Impacts on vegetation from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as "limited to existing roads and trails" (3,367,576 acres) would be changed to "limited to designated roads and trails" and all routes within this area would be designated as open, closed, or limited.

Impacts on vegetation from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a smaller area and thereby offer fewer protections to these areas. The management would reduce surface disturbing activities and indirectly help to protect and maintain healthy vegetative communities. The acres designated as ACECs would decrease to 246,634 acres (14% decrease compared with Alternative A).

### 4.6.4 Proposed RMP

The Proposed RMP is a combination of management actions, primarily from Alternative B and Alternative and D, and would have similar impacts as previously described under these alternatives. In general, the Proposed RMP would have increased protections for vegetation communities, compared to Alternatives A and D, but fewer than Alternative B.

Impacts on vegetation resulting from implementing management actions for air quality, water resources, fish and wildlife, special status species, cultural resources, paleontological resources, wild horses, and livestock grazing would the same as those presented under Alternative A. The impacts on vegetation from managing fire and fuels, invasive species and pest management, and forest and woodland management would be the same as those presented under Alternative B.

Impacts on vegetation from implementing soil management actions would be similar to those identified under Alternative A, except that restrictions in areas with limited reclamation potential soils, consistent with Alternative D, would reduce the extent of surface-disturbing activities in these areas, thereby reduce the intensity and extent of vegetation removal, and degradation of vegetation communities.

Impacts on vegetation from not managing lands with wilderness characteristics specifically to preserve their wilderness characteristics would be the same as those described under Alternative D.

Impacts on vegetation from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except that stipulations that limit surface disturbance from fluid mineral leasing would be applied to more acres (Table 2-4 in Appendix V). As shown in Table 4-7 in Chapter 4, under the Proposed RMP approximately 42,351 acres (38% more acres than under Alternative A) of grasslands would be closed to oil and gas leasing and 5,286 acres (64% fewer acres than under Alternative A) would be managed with NSO stipulations; 99,596 acres (49% fewer acres than under Alternative A) of sagebrush would be closed to oil and gas leasing and 23,010 acres (90% fewer acres than under Alternative A) would be managed with NSO stipulations; 43,055 acres (71% more acres than under Alternative A) of riparian vegetation would be closed to oil and gas leasing and 3,020 acres (90% fewer acres than under Alternative A) would be managed with NSO stipulations; and 11,535 acres (39% fewer acres than under Alternative A) of aspen/conifer vegetation would be closed to oil and gas leasing and 322 acres (96% fewer acres than under Alternative A) would be managed with NSO stipulations.

Under the Proposed RMP, pursuing withdrawal for locatable minerals on 900,204 acres (62% more acres than under Alternative A) and closing 884,906 acres to mineral material sales (6% more acres than under Alternative A), would result in impacts similar to those described under Alternative A, but over a larger area. Closing additional areas to mineral development may reduce additional vegetation damage or removal when compared to Alternative A, but to lesser extent than management under Alternative B.

Impacts on vegetation from managing vegetation resources would be similar to those presented under Alternative A, except that a full range of naturally occurring wildfires, prescribed fire, chemical treatments, biological treatments, mechanical methods, and livestock grazing would be used to meet vegetation management objectives. As noted under Alternative D, the BLM anticipates that the impacts on vegetation resources from expanding the range of treatment options would be essentially the same as under Alternative A. The Proposed RMP would also allow vegetation manipulation projects to reach multiple-use objectives, with similar effects anticipated as under that alternative.

Impacts on vegetation resulting from implementing VRM actions would be similar to those presented under Alternative A, except that the number of acres designated as VRM Class II would be increased to 1,301,004 acres (123% increase compared with Alternative A) (Table 2-9 in Appendix V), which could result in decreased vegetation removal and degradation when compared to Alternative A, but to a lesser extent than under Alternative B.

Impacts on vegetation resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except that acres of ROW exclusion and ROW avoidance areas would be increase to 921,059 acres (116% increase compared with Alternative A), and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). ROW exclusion, and, to a lesser extent, avoidance, areas would limit new linear and renewable energy facilities that could damage or remove vegetation.

Impacts on vegetation from managing special designations and management areas would be similar to those presented under Alternative A, except that they would occur over a larger area and thereby offer additional protections to vegetation in these areas. The management attached to these designations would reduce surface-disturbing activities/direct removal of vegetation and indirectly help to protect and maintain healthy vegetative communities. The acres designated as ACECs would increase to 935,135 acres (226% increase compared with Alternative A). However, compared to Alternative B, acres designated as ACECs would decrease by 42%, resulting in fewer beneficial effects on vegetation resources.

## 4.7 WILDLIFE AND FISHERIES

### 4.7.1 Alternative B

Impacts to wildlife and fisheries habitat from geophysical, land withdrawals, land disposals, land acquisitions, renewable energy, and WSR management would be the same as those described under Alternative A.

Impacts from air quality management would be the same as those described under Alternative A; however, measures to control dust could protect wildlife and fisheries habitat to a greater degree than compared to Alternative A.

Impacts to wildlife and fisheries from the management of soil resources would be similar to those described under Alternative A; however, additional management protection to soil resources could support wildlife habitat and fisheries resources to a greater degree compared to Alternative A.

Impacts to wildlife and fisheries from the management of water resources would be similar to those described under Alternative A. However, applying buffers to the prohibition of surface disturbing activities and new permanent structures within aquatic systems, applying mineral stipulations, and avoiding linear crossings would support wildlife habitat and aquatic systems. The additional management for aquifers and water quality could protect wildlife habitat and fisheries resources to a greater degree compared to Alternative A.

Managing all lands with wilderness characteristics for their wilderness characteristics would prevent damage or loss of wildlife habitat from development activities, reduce disturbance to wildlife from the presence of humans,

vehicles, or machinery, prevent erosion or runoff, and protect an intact ecosystem. The closed acres that are adjacent to riparian habitat or stream channels would protect important habitat for fish species, such as avian species, big game, and other wetland and riparian wildlife species, and would support water quality within stream and river corridors. The lands with wilderness characteristics would be directly protected from damage and disturbance by oil and gas development. Precluding oil and gas development would prevent the introduction and spread of invasive, non-native plant species from machinery and vehicles, further supporting desired forage, cover, and contiguous habitat.

Under Alternative B, approximately 1,292 oil, gas, and CBNG wells would be developed within the planning area, 3,481 fewer wells as compared to Alternative A. There would be 8,892 acres of initial surface disturbance and 2,566 acres of long-term disturbance from oil and gas development. There would be 23,939 fewer acres of initial surface disturbance and 6,900 fewer acres of long-term disturbance compared with Alternative A.

Closing 2,186,218 acres to fluid mineral leasing would reduce habitat loss for wildlife and would close 1,646,197 more acres than under Alternative A. Closing land to new oil and gas development would protect larger areas of habitat for deer, elk, and pronghorn as compared to Alternative A (Table 4-9 in Chapter 4). This management would allow for contiguous, uninterrupted habitat, for wildlife to migrate, breed, hunt, and forage. Over one million more acres of sagebrush habitat would be closed to oil and gas leasing as compared to Alternative A. Wildlife that rely on sagebrush would have larger areas of undisturbed habitat free from disturbance and mineral development activity.

Under Alternative B, 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. The NSO stipulation would protect larger areas of habitat for deer, elk, pronghorn, and moose as compared to Alternative A (Table 4-9 in Chapter 4). Larger areas of grassland and sagebrush would be protected from surface disturbance and disruptive activity under Alternative B, which could support greater habitat connectivity for numerous wildlife species.

Applying CSU stipulations to oil and gas leases could reduce damage or loss of vegetation and habitat for wildlife (99,674 acres of CSU). Impacts to wildlife and fisheries from the application of CSU stipulations would be similar to those described under Alternative A, but smaller areas of habitat could receive some reduced impacts from oil and gas development and production activities (Table 4-9 in Chapter 4).

Approximately 1,993,908 acres of the planning area would be proposed for withdrawal from locatable mineral entry, 1,437,350 acres more than Alternative A (Table 4-10 in Chapter 4), and 2,186,218 acres would be closed to geothermal leasing, 1,646,197 acres more than under Alternative A. The remaining acres in the planning area would be available for locatable mineral entry and geothermal leasing. Impacts to wildlife and fisheries would be similar to those under Alternative A; however, a much larger area of land would be unavailable for locatable mineral development and geothermal leasing compared to Alternative A.

Impacts to wildlife and fisheries habitat from the development of solid leasable minerals would be similar to those described under Alternative A. Under Alternative B, 3,535,546 acres would be closed to coal, 2,122,282 acres would be closed to oil shale, and 2,119,920 acres would be closed to trona leasing and development. The protections to lands closed to solid mineral development would be applied to 3,049,582 more acres of land closed to coal, 1,394,477 more acres of lands closed to oil shale, and 1,665,326 more acres of land closed to trona leasing and development compared to Alternative A. The larger areas of closures would prevent damage or loss of wildlife habitat from development activities when compared to Alternative A (Table 4-10 in Chapter 4).

Closing 2,581,741 acres of lands to saleable mineral development would prevent damage or loss of wildlife habitat from mineral excavation on 1,748,022 more acres compared to Alternative A. Impacts to big game, wildlife, and fish habitat would be similar to those described under Alternative A, but a much greater area of land would be closed to surface disturbing activities (Table 4-10 in Chapter 4).

Impacts from wildland fire management would be similar to those described under Alternative A. Additional management to protect sagebrush and other sensitive resources could protect habitat and wildlife within these areas from damage or loss from unplanned fires to a greater degree compared to Alternative A.

Under Alternative B, forest and woodland management would be similar to the management and impacts described under Alternative A; however, Alternative B emphasizes the use of natural processes for forestry management in addition to not allowing clearcutting. The management in Alternative B would support forest and woodland habitat for wildlife by encouraging natural habitat conditions, native vegetation, cover, forage, and functional ecosystems.

Impacts to wildlife and fish habitat from management of grassland and shrubland communities would be very similar to those described under Alternative A. Resting lands from livestock grazing a minimum of five growing seasons after treatments would allow treated areas to revegetate, soils to stabilize, and vegetation to mature to the point of withstanding livestock grazing pressure. Rested areas could provide wildlife with new vegetation for cover and forage without competition with livestock during the rest period.

Impacts to wildlife and fish habitat from invasive species and pest management would be similar to those described under Alternative A. Additional management for invasive plant species control through only mechanical or biological methods, would protect vegetation and wildlife habitat from damage from the use of more invasive control methods, such as chemicals or fire. However, less invasive techniques may not be as effective in controlling large infestations of noxious weeds as chemicals or fire. Under Alternative B, additional management for preventing and controlling the infestation of aquatic invasive species could support wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems.

Impacts to wildlife and fish habitat from the management of riparian and wetland resources would be similar to those described under Alternative A. Additional management for achieving PFC would maintain or improve wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems. The management could help reduce soil runoff into aquatic systems, reducing siltation of spawning habitat, improving water quality, and preventing erosion of streambanks.

Management for wildlife and fish would be similar to Alternative A and impacts would be similar to those described under Alternative A. Additional management under Alternative B such as adjustments to livestock and wild horse management could help maintain or improve habitat by preventing vegetation loss, removing competition for forage, or reducing the introduction or spread of invasive, non-native plant species. The management could reduce soil compaction, erosion, sedimentation, and the influx of nutrients into riparian areas, wetlands, or streambeds. Maintaining and improving habitat for migratory bird species of conservation concern could support habitat for Neotropical migrants. The management could support existing nesting, feeding, or breeding habitat, or could allow for mitigation to restore areas of habitat if losses were suffered elsewhere in the planning area. Alternative B would apply greater stipulations to protect important seasonal and sensitive habitat for fish and wildlife species. Stipulations for no net loss of habitat and prohibiting renewable energy projects in sensitive habitats would prevent the loss or damage of important habitat areas for forage, hunting, nesting, breeding, young rearing, and migration of wildlife species. The management could also protect wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems.

Impacts to wildlife and fish habitat from the management for big game of would be similar to those described under Alternative A. Additional management to protect big game parturition habitat, crucial winter range, and migration corridors could ensure reproductive success and survival of young, reduce winter mortality associated with increased stress caused by human-induced disturbance, and provide migration corridors that link crucial habitats (winter range) and parturition areas.

Impacts to wildlife and fish habitat from the management of raptors would be similar to those described under Alternative A. Under Alternative B, additional management would protect raptors through seasonal closures, greater buffer distances, preventing surface disturbance or occupancy within one mile of active and historic nests, and locating infrastructure away from high avian-use areas. The management would provide greater protection by reducing disturbance to raptors during critical life phases, preventing the risk of collisions with wires or structures, and protecting important habitat for nesting, breeding, or hunting as compared to Alternative A.

Impacts to wildlife and fish habitat from the management of fish would be similar to those described under Alternative A. Under Alternative B, additional management would provide specific timeframes for seasonal restrictions and buffer distances (¼ mile), which could provide greater protection for fish and important habitat for fish reproduction to a greater degree than compared to Alternative A. Closing fish bearing streams to solid mineral leasing would support fisheries and stream health, and protect wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems. The restrictions could help prevent sediment runoff into aquatic systems, reduce siltation of spawning habitat, improve water quality, and prevent erosion of streambanks.

Impacts to wildlife and fish habitat from the management of special status plant species would be similar to those described under Alternative A. Under Alternative B, additional management could provide greater habitat protection and fewer disruptive activities, supporting wildlife and their habitat.

Impacts to wildlife and fish habitat from the management of special status wildlife species would be similar to those described under Alternative A. Under Alternative B, additional management to protect habitat and reintroduce species would provide greater habitat protection for wildlife and fish, and reintroduction of species could fill key niches in ecosystems.

Impacts to wildlife and fish habitat from the management of cultural resources would be similar to those described under Alternative A. Under Alternative B, additional management such as buffer distances, NSO stipulations, and closures to mineral sales to prevent surface disturbing activities would reduce damage or removal of wildlife cover and forage, reduce fragmentation of habitat, and prevent disturbance of wildlife to a greater degree than Alternative A.

Impacts to wildlife and fisheries from the management of visual resources would be the same as those described under Alternative A for VRM Class I (225,785 acres, 68 acres more than Alternative A), VRM Class III (666,522 acres, 51,030 acres more than Alternative A), and for the Gateway West Pipeline. Under Alternative B, 2,148,902 acres would be managed as VRM Class II, 1,566,230 more acres than Alternative A. The management for VRM Class II would retain the character of the landscape, which could allow for some surface disturbance, as described under Alternative A, but the classification of 2,148,902 acres would provide greater protection overall for wildlife and fisheries. Under Alternative B, 563,754 acres would be managed as VRM Class IV, 1,616,669 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class IV would be the same as those described under Alternative A, but fewer acres would be subjected to the level of surface disturbance allowed within the VRM Class IV classification.

Impacts to wildlife and fisheries from ROW management would be the same as those described under Alternative A; however, under Alternative B, 2,480,876 acres would be managed as ROW exclusion areas. The management would protect fish and wildlife habitat from linear disturbances, surface disturbing activities, and habitat loss on 2,130,936 more acres as compared to Alternative A. Fewer acres would be managed as avoidance areas, 133,903 acres under Alternative B, 602,235 fewer acres than Alternative A. Although a smaller amount of land would be protected as avoidance areas, the difference is far offset by the over two million additional acres of land managed as exclusion areas.

Impacts to wildlife and fisheries from livestock grazing management would be similar to those described under Alternative A. In addition, application of monitoring, greater protection of riparian areas and springs, and additional range improvements would provide greater protection of fish and wildlife habitat as compared to Alternative A. The additional management could help maintain or improve habitat by reducing congregation of animals in sensitive areas and prevent or reduce damage to forage and cover. Removal of fences reduces threats of injury or death from collisions or entanglement with fences, enhances migration corridors, and could allow access to additional forage and cover.

Impacts to wildlife and fisheries from recreation management would be similar to those described under Alternative A. Additional management to consider other resource values, buffer distances, and mineral lease stipulations and closures could help maintain or improve habitat for fish and wildlife to a greater degree than Alternative A.

Under Alternative B, the Wind River Front SRMA (257,680 acres) would not be retained.. This could reduce vegetation damage, surface disturbance, and disruption of wildlife from human or vehicle presence caused by recreation use to a greater degree than Alternative A. Other management within the Wind River Front area would have similar impacts to wildlife and fisheries compared to Alternative A, but with greater protection to lands from mineral stipulation and other surface disturbance prohibitions.

Impacts to wildlife and fisheries from managing OHV open and closed areas would be the same as those described under Alternative A. Under Alternative B, there would be no category called "limited to existing roads and trails." While the routes would be moved under the "limited to designated roads and trails" for a total of 3,367,576 acres (the sum of limited to designated and limited to existing acres in Alternative A) impacts to wildlife and fish habitat would be similar to those described under both categories under Alternative A. Additional management to prohibit and limit OHV use could provide greater protection to wildlife and fisheries from damage to fish and wildlife habitat and help to prevent soil loss, erosion, and runoff to riparian habitat, and the introduction or spread of invasive, non-native plant species as compared to Alternative A.

Impacts to wildlife and fisheries from the management of congressionally designated trails would be similar to those described under Alternative A. Under Alternative B, management of eligible and congressionally designated trails could reduce or prevent disturbance or loss of habitat for wildlife to a greater degree when compared to Alternative A.

Impacts to wildlife and fisheries from the management of WSAs would be similar to those described under Alternative A. Additional management under Alternative B for visual resources could provide greater habitat protection beyond the perimeter of the WSAs by preventing or reducing surface disturbing activities within viewsheds.

Under Alternative B, the Red Desert Watershed Management Area would be divided into a management area (164,140 acres) and the remainder added to the Steamboat Mountain ACEC (439,330 total acres). Impacts to fish and wildlife from the management of the area would be similar to those described in Alternative A, but additional management could further reduce surface disturbance, human and vehicle presence, and a reduction in predation of smaller wildlife species. Where protective management is applied, it would support forage, habitat, migration corridors, and other important areas for big game, raptors, and other wildlife species. The management could reduce soil runoff into aquatic habitat, support water quality, and protect riparian areas from sedimentation and erosion. The remaining management areas listed in Alternative A would be managed as ACECs under Alternative B.

The Greater Red Creek ACEC would be expanded from 131,600 acres in Alternative A to 468,170 acres, and the Monument Valley ACEC (69,960 acres), and Big Sandy Openings ACEC (2,020 acres) would be designated in Alternative B. The expansion and designations would allow for greater protection of habitat for wildlife and

fisheries through management such as ROW exclusion, closed to mineral leasing, limited vehicle use, vegetation management, and protective management for wildlife.

Designating the Pinnacles ACEC (1,340 acres) would protect habitat for wildlife and fisheries through management such as ROW exclusion, closed to mineral sales, and limiting surface disturbing activities. The management would support forage, habitat, migration corridors, and other important areas for big game, raptors, and other wildlife species. The management could reduce soil runoff into aquatic habitat, support water quality, and protect riparian areas from sedimentation and erosion.

Impacts to wildlife and fisheries from retaining the designation of the Cedar Canyon ACEC (2,540 acres) would be similar to Alternative A, but additional management would allow for greater habitat protection under Alternative B.

Impacts to wildlife and fisheries from retaining the designation of the Greater Sand Dunes ACEC (including the Crookston Ranch and Boar's Tusk Portions, 39,290 acres) and the Oregon Buttes ACEC would be the same as those described under Alternative A.

Impacts to wildlife and fisheries from the management of the Eastern Portion of the Greater Sand Dunes ACEC would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Impacts to wildlife and fisheries from the management of the Natural Corrals ACEC (1,110 acres) would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Impacts to wildlife and fisheries from the management of the Pine Springs ACEC (6,480 acres) would be similar to those described under Alternative A. The ACEC would be expanded an additional 430 acres under Alternative B. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Impacts to wildlife and fisheries from the management of the Special Status Plant Species ACEC (3,610 acres) would be similar to those described under Alternative A. The ACEC would be expanded an additional 2,510 acres under Alternative B. The inclusion of additional land and protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Impacts to wildlife and fisheries from the management of the Steamboat Mountain ACEC (439,330 acres) would be similar to those described under Alternative A. The ACEC would be expanded an additional 392,050 acres under Alternative B. The inclusion of additional land and protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Impacts to wildlife and fisheries from the management of the White Mountain Petroglyphs ACEC (20 acres) would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Designating and managing the South Wind River ACEC (374,710 acres) for watershed, sensitive big game habitat, wildlife, and other values could improve, enhance, or maintain fisheries and wildlife habitat. Protective

management to prevent or reduce surface disturbance, ROW exclusion, and closures to mineral leasing could provide protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence. Preventing or reducing surface disturbing activities in the ACEC would maintain contiguous habitat for forage, cover, migration, and important life cycles of big game, raptors, and other wildlife. The management could reduce the introduction or spread of invasive, non-native plant species, which would protect native habitat. Habitat for fish, macroinvertebrates, waterfowl, and other aquatic species could be protected by reducing soil loss, erosion, and runoff to riparian habitat. Reducing erosion would support water quality, stream channel integrity, and prevent cementation of spawning gravel. Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation.

Designating and managing the Big Game Migration Corridors ACEC (226,335 acres) to prohibit surface disturbing activities or facilities and other actions to restrict development and habitat fragmentation would support and protect big game and other species which use the area for habitat or migration. Management for no-net-loss of sensitive habitat would allow uninterrupted expanses of habitat for big game and other wildlife to use for forage, cover, or movement across the landscape. Providing protected corridors for big game and other wildlife species allows for passage from critical ranges such as winter habitat or parturition areas to summer habitat with reduced stress from human presence, danger of vehicle collisions, or disturbance from machinery within the ACEC. Because limited disturbing activities would be allowed, fewer activities that could force wildlife to flee or abandon habitat could occur, lowering stress levels and allowing big game, raptors, and other wildlife to remain in desired habitat. Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation within the mitigation area.

Impacts to wildlife from reducing or minimizing risk to humans and the environment from hazardous materials would be similar to Alternative A. In addition, restoration of contaminated lands could reduce runoff of contaminants into riparian and aquatic systems and provide additional habitat for wildlife species.

## 4.7.2 Alternative C

Impacts to wildlife and fisheries habitat from geophysical, riparian and wetland, raptors, cultural resources, pursuing land withdrawals, land disposals, land acquisitions, and renewable energy management would be the same as those described under Alternative A.

Impacts to wildlife and fisheries from air quality management would be the same as those described under Alternative B, with the exception of dust abatement measures, which would be the same as Alternative A.

Impacts to wildlife and fisheries from the management of soil resources would be similar to those described under Alternative A. Fewer protections to highly erodible soils under Alternative C could result in the potential for increased soil erosion, soil loss, and sediment runoff to a greater degree when compared to Alternative A.

Lands with wilderness characteristics would not be managed for wilderness characteristics under Alternative C. These lands would be managed for other resource uses or resource values. Protective management applied under Alternative B would not be applied in Alternative C and could allow surface disturbing or disruptive activities to occur on these lands. Surface disturbance or disruptive activities could result in damage or removal of cover and forage, fragmentation of habitat, and disturbance that could force wildlife to abandon habitat within these areas. Development could result in runoff into aquatic systems, causing siltation of spawning habitat, reduced water quality, and erosion of streambanks, diminishing stream function and health. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, making habitat less desirable to native wildlife. Disturbed areas could attract predatory species of wildlife which could reduce populations of small wildlife.

Approximately 4,919 oil, gas, and CBNG wells would be developed under Alternative C within the planning area, 146 more than under Alternative A. There would be 33,840 acres of initial surface disturbance and 9,758 acres of long-term disturbance from fluid mineral development. This would be 1,009 more acres of initial surface disturbance and 292 more acres of long-term disturbance compared with Alternative A.

Closing 225,782 acres to fluid mineral leasing would reduce habitat loss for wildlife and would allow for contiguous, uninterrupted habitat, and 314,239 fewer acres would be closed than under Alternative A. Impacts to wildlife and fisheries would be similar to those described under Alternative A; however, surface disturbance, habitat damage, and forage loss could occur over more acres under Alternative C. Closing fewer acres of land to new oil and gas development would reduce habitat protection for deer, elk, pronghorn, and moose as compared to Alternative A (Table 4-9 in Chapter 4). All vegetation types that provide habitat for big game as well as other wildlife species would have smaller areas of protection within closed areas.

Under Alternative C, 15,542 acres would be managed with NSO stipulations, which is 143,069 fewer acres than Alternative A. Outside of areas with NSO stipulations, impacts to wildlife and fisheries would be similar to those described under Alternative A, however, surface disturbance and disruptive activities could occur over 143,069 more acres under Alternative C. The NSO stipulation would reduce habitat protection for deer, elk, pronghorn, and moose from surface disturbance as compared to Alternative A (Table 4-9 in Chapter 4). Vegetation types that provide habitat for big game as well as other wildlife species would have smaller areas of protection under the NSO stipulation, which could lead to habitat fragmentation and lower quality forage or cover for wildlife.

Applying CSU stipulations to 215,890 acres could reduce damage or loss of vegetation and habitat for wildlife, 505,242 fewer acres compared to Alternative A (Table 4-9 in Chapter 4). Impacts to wildlife and fisheries from the application of CSU stipulations would be similar to those described under Alternative A, but overall, less habitat would receive reduced impacts from oil and gas development and production activities.

Approximately 234,961 acres of the planning area would be pursued for withdrawal from locatable mineral entry, 321,597 fewer acres compared to Alternative A. Approximately 225,782 acres of the planning area would be closed to geothermal leasing, 314,239 fewer acres compared to Alternative A. Impacts to wildlife and fisheries would be the same as those described under Alternative A; however, surface disturbance and disruptive activities could occur over more acres under Alternative C (Table 4-10 in Chapter 4).

Impacts to wildlife and fisheries habitat from the development of coal resources would be similar to those described under Alternative A. Under Alternative C, 226,219 acres would be closed to coal, 225,965 acres would be closed to oil shale, and 225,965 acres would be closed to trona leasing and development. The smaller areas of closures, 407,618 acres fewer for coal, 501,840 for oil shale, and 228,629 fewer for trona, could result in increased damage or loss of wildlife habitat from development activities and increased disturbance to wildlife from the presence of humans when compared to Alternative A (Table 4-10 in Chapter 4).

Approximately 226,421 acres of the planning area would be closed to saleable mineral development, 607,298 fewer acres compared to Alternative A. Impacts to wildlife and fisheries would be the same as those described under Alternative A, however, surface disturbance and disruptive activities could occur over more acres under Alternative C.

Impacts to wildlife and fisheries from wildland fire management and forest and woodland management would be the same as those described under Alternative A. Under Alternative C, allowing the harvest of cottonwood trees could remove nesting habitat for birds and bats, disturb nearby wildlife from human presence, machinery and vehicles, and cause surface disturbance which could remove vegetation and cause erosion.

Impacts to wildlife and fish habitat from management of grassland and shrubland communities would be very similar to those described under Alternative A. Use of non-native species could help stabilize soils and prevent

erosion in the short term, and over the long term could provide stable land for native species to re-establish. Some non-native plants may not provide appropriate cover or forage values for wildlife, and the use of non-native plants could increase the risk of spread and eventual degradation of native habitat values.

Impacts to wildlife and fish habitat from invasive species and pest management would be similar to those described under Alternative A. Additional management for invasive plant species control through various methods, including chemicals, the use of BMPs, and buffer distances for chemical use could reduce the infestation and spread of invasive species to a greater degree than Alternative A. Additional management for preventing and controlling the infestation of aquatic invasive species could support wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl and other species dependent on these ecosystems. The management would help prevent the infestation of riparian and aquatic habitat from non-native species, which would help maintain native ecosystems for forage and cover for wildlife and could support water quality and quantity.

Management for wildlife and fish would be similar to Alternative A, and impacts would be similar to those described under Alternative A. Additional management under Alternative C by prioritizing livestock and raising grazing levels could increase competition for forage resources between livestock and wildlife, especially for big game species. Increased use by livestock could cause loss of vegetation for forage and cover, soil compaction, erosion, trampling of vegetation and habitat, and the spread of invasive, non-native plant species. Retaining fences could impact wildlife by creating travel barriers, altering distribution patterns, increasing stress and energy loss, and could cause injury or death from entanglement or collisions.

Management to allow renewable energy projects in sensitive wildlife habitats could result in habitat damage or loss of big game crucial winter range and parturition habitat, raptor concentration areas (high-use/high-density raptor nesting/roosting/perching areas), and unique habitats (e.g., aspen and mountain shrub). Renewable energy development could result in displacement of some wildlife and raptor species from breeding and foraging habitat within the construction area. Construction of wind turbines throughout the planning area may create collision hazards for raptors, bats, and multiple avian species. Studies have documented deaths of avian and bat species from wind turbines, although the levels of collision and death vary in the scientific research (Madders and Whitfield 2006). Collision levels fluctuate based on habitat, terrain, elevation and even weather conditions (Madders and Whitfield 2006). Prediction of accurate bird or bat losses from wind development is currently not available; however, it can be assumed that some losses of these species will occur. Physical or psychological barriers could lead to fragmentation of habitats, further limiting the availability of effective habitat. An area of intensive activity or construction becomes a barrier when animals cannot or will not cross it to access otherwise suitable habitat. These impacts are especially problematic when they occur within limiting habitat components such as crucial winter ranges and reproductive habitats. Development of solar projects would result in the entire loss of all habitat within the project footprint. Studies have shown avian mortalities associated with solar farms, where birds may mistakenly see solar panels as the reflective surface of a lake or water body (Kagan et al. 2014).

Impacts to wildlife and fish habitat from the management for big game of would be the same as those described under Alternative A. Slightly more protections to seasonal habitat could be applied under Alternative C, which could reduce disruptive activities within sensitive big game habitat.

Under Alternative C, seasonal restrictions for surface disturbance near spawning fish populations would not be applied. Allowing surface disturbing activities along fish bearing streams near spawning, incubation, and fry rearing habitat could lead to sediment runoff and accumulation of fine silts in stream channels, which could cause cementation of spawning gravel for fish species. Increased sediment could affect water quality for and aquatic habitat for fish, waterfowl, macroinvertebrates, and other species dependent on these ecosystems.

Impacts to wildlife and fish habitat from the management of special status plant species would be similar to those described under Alternative A. Under Alternative C, allowing more opportunities for surface disturbing activities

near special status plant species could force big game, raptors, or other wildlife to abandon habitat within these areas.

Impacts to wildlife and fisheries from the management of visual resources would be very similar to those described under Alternative A. Management for VRM Class I would be 226,629 acres, 912 acres more than Alternative A; VRM Class II would be 607,899 acres, 25,227 acres more than Alternative A; VRM Class III would be 395,683 acres, 219,809 fewer acres than Alternative A; and VRM Class IV, 2,374,706 acres, 194,283 acres more than Alternative A.

Impacts to wildlife and fisheries from ROW management would be similar to those described under Alternative A. Under Alternative C, 225,784 acres would be managed as ROW exclusion areas, 200,925 fewer acres compared to Alternative A. Under Alternative C, 31,018 acres would be managed as ROW avoidance areas, 705,120 fewer acres compared to Alternative A. Surface disturbing and disruptive activities from ROW development could damage or remove forage and habitat for wildlife species to a greater degree than under Alternative A.

Impacts to wildlife and fisheries from livestock grazing management would be similar to those described under Alternative A. Additional management under Alternative C by allowing livestock in riparian areas could increase competition for forage resources between livestock and wildlife, especially big game species. Increased use by livestock could cause loss of vegetation for forage and cover, soil compaction, erosion, trampling of vegetation and habitat, and the spread of invasive, non-native plant species. Use of riparian areas by livestock could increase runoff and accumulation of fine silts in stream channels which could cause cementation of spawning gravel for fish species. Increased sediment could affect water quality and aquatic habitat for fish, waterfowl, macroinvertebrates, and other species dependent on these ecosystems. Water developments, particularly in winter and parturition ranges, could lead to reductions in forage due to distribution of animals; however, implementation of the Wyoming Land Health Standards could ensure that habitat for wildlife is not degraded by over-use of livestock.

Under Alternative C, reducing total authorized use to highest level of billed use over the last 10 years could provide increased forage and habitat resources for big game and other wildlife species. Reducing use to 160,387 AUMs could reduce habitat degradation from livestock, which could support water quality and availability, and allow a more natural grazing pattern from wildlife use. However, because management of livestock under this alternative would be very similar to the levels of actual use that have historically occurred in the planning area, it is likely that few changes would occur beyond those described under Alternative A.

Impacts to wildlife and fisheries from recreation management would be similar to those described under Alternative A; however, the emphasis of recreation use over other resources could result in more surface disturbing or disruptive activities to occur from recreation use.

Impacts to wildlife and fisheries from the management of the Wind River Front SRMA (257,680 acres) would be similar to those under Alternative A for recreation and the management of the SRMA. The emphasis of the SRMA management for recreation use, including increased use of motorized vehicles, allowing increased surface disturbing activities and mineral leasing would lead to habitat loss and abandonment of habitat to a greater degree when compared to Alternative A.

Impacts to wildlife and fisheries from managing OHV areas would be the same as those described under Alternative A; however, managing transportation routes as open, closed, and limited to designated roads and trails would protect fish and wildlife habitat to a greater degree than described under Alternative A.

Impacts to wildlife and fisheries from the management of eligible and congressionally designated trails would be similar to those described under Alternative A. Under Alternative C, allowing surface disturbing activities, mineral development, and other disruptive activities could result in more habitat damage or loss.

WSAs would be managed for multiple use, and WSRs, ACECs, and other management areas would not be retained under Alternative C. This management would result in fewer protections to wildlife and fisheries habitat as compared to Alternative A and could allow surface disturbing or disruptive activities to occur on these lands.

Impacts to wildlife and fisheries from public safety management would be the same as those described under Alternative B.

### 4.7.3 Alternative D

Impacts to wildlife and fisheries habitat from geophysical activities, wildland fire, grassland and shrubland, raptors, special status wildlife species, cultural, paleontological, pursuing land withdrawals, land disposals, land acquisitions, renewable energy, livestock grazing, and WSR management would be the same as those described under Alternative A.

Impacts to wildlife and fisheries from air quality management would be the same as those described under Alternative B, with the exception of dust abatement measures, which would not be required under Alternative D. Applying dust abatement measures on a case-by-case basis could reduce dust accumulation on forage for wildlife that could diminish the quality of forage and make it less palatable. Dust control could reduce sediment runoff and accumulation of fine silt in stream channels which would prevent cementation of spawning gravel for fish species. Reduced sediment would support water quality and aquatic habitat for fish, waterfowl, macroinvertebrates, and other species dependent on these ecosystems.

Impacts to wildlife and fisheries from the management of soil resources would be similar to those described under Alternative A. However, additional management protection to soil resources could support wildlife habitat and fisheries resources to a greater degree compared to Alternative A.

Impacts to wildlife and fisheries from the management of water resources would be similar to those described under Alternative A. Applying buffers and the avoidance of surface disturbing activities and construction within aquatic systems, applying mineral stipulations, and avoiding linear crossings could support wildlife habitat and aquatic systems. The management would protect streams and water resources lesser degree than Alternative A, due to the avoidance stipulation for development within stream buffers. Additional management for aquifers and water quality could protect wildlife habitat and fisheries resources to a greater degree compared to Alternative A.

Impacts to wildlife and fisheries from the management of lands with wilderness characteristics would be similar to those described under Alternative B. Fewer areas would be managed specifically for those characteristics and fewer restrictions on surface disturbance would be applied, providing fewer protections of wildlife habitat under this alternative.

Under Alternative D, approximately 4,737 oil, gas, and CBNG wells would be developed within the planning area, 36 fewer wells as compared to Alternative A. There would be 32,587 acres of initial surface disturbance and 9,397 acres of long-term disturbance from oil and gas development. There would be 244 fewer acres of initial surface disturbance and 69 fewer acres of long-term disturbance compared with Alternative A.

Closing 768,989 acres to fluid mineral leasing would reduce habitat loss for wildlife and would close 228,968 more acres than under Alternative A. Impacts to wildlife and fisheries would be similar to those described under Alternative A; however, surface disturbance, habitat damage, and forage loss could occur over more acres under Alternative C. Closing fewer acres of land to new oil and gas development would reduce habitat protection for deer, elk, pronghorn, and moose as compared to Alternative A (Table 4-9 in Chapter 4). All vegetation types that provide habitat for big game as well as other wildlife species would have smaller areas of protection within closed areas.

Under Alternative D, 2,172 acres would be managed with NSO stipulations, which is 156,439 fewer acres than under Alternative A. Fewer acres managed with NSO stipulations would protect smaller areas of habitat for deer, elk, pronghorn, and moose as compared to Alternative A (Table 4-9 in Chapter 4). The management could allow an increase disturbance within riparian, grassland, and aspen/conifer habitat from surface disturbance, vegetation loss, or migration corridors when compared with Alternative A.

Applying CSU stipulations to oil and gas leases could reduce damage or loss of vegetation and habitat for wildlife (1,238,899 acres of CSU). Impacts to wildlife and fisheries from the application of CSU would be similar to those described under Alternative A. About 517,767 more acres of habitat could receive some reduced impacts from oil and gas development and production activities from CSU stipulations as compared to Alternative A (Table 4-9 in Chapter 4).

Approximately 482,272 acres of the planning area would be pursued for withdrawal from locatable mineral entry, 74,286 fewer acres than Alternative A, and 768,989 acres would be closed to geothermal leasing, 228,968 more acres than under Alternative A. The remaining acres in the planning area would be available for development of locatable minerals and geothermal leasing. Impacts to wildlife and fisheries would be similar to those under Alternative A; however, fewer acres of land would be pursued for withdrawal from locatable mineral entry and closed to geothermal leasing compared to Alternative A. Lands within those areas would not have surface disturbance from geothermal development, and habitat for big game, wildlife, and fish would not be damaged from those activities (Table 4-10 in Chapter 4).

Impacts to wildlife and fisheries habitat from the development of solid leasable minerals would be similar to those described under Alternative A. Under Alternative D, 610,342 acres would be closed to coal leasing, 124,378 more acres than under Alternative A, 1,557,520 acres would be closed to oil shale leasing, 829,715 more acres than Alternative A, and 389,552 acres would be closed to trona leasing, 34,081 fewer acres than Alternative A. The smaller areas of coal, oil shale, and trona closed to leasing could result in increased damage or loss of wildlife habitat from development activities and increased disturbance to wildlife from the presence of humans when compared to Alternative A.

Closing 362,009 acres of lands to saleable mineral development would prevent damage or loss of wildlife habitat from mineral excavation on 471,710 fewer acres compared to Alternative A. Impacts to big game, wildlife, and fish habitat would be similar to those described under Alternative A, but a smaller area of land would be closed to surface disturbing activities (Table 4-10 in Chapter 4).

Impacts to wildlife and fisheries from forest and woodland management would be similar to those described under Alternative A. In addition, Alternative D would limit logging operations on slopes steeper than 25%, which could help prevent or reduce soil loss and erosion from logging operations. Reducing or preventing soil loss and erosion could reduce sediment build up in streams, which could protect water quality and spawning gravel for fisheries. Under Alternative D, allowing the harvest of cottonwood trees could remove nesting habitat for birds and bats. Harvest could disturb nearby wildlife from human presence, machinery, and vehicles, and cause surface disturbance which could remove vegetation and cause erosion. Surface disturbance could result in runoff into aquatic systems, causing siltation of spawning habitat, diminished water quality, and erosion of streambanks. Erosion and increased runoff could continue in harvest areas until new vegetation is established.

Impacts to wildlife and fish habitat from management of riparian and wetland resources would be similar to those described under Alternative A. Additional management for achieving Wyoming Rangeland Standards and PFC would maintain or improve wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems.

Management for wildlife and fish would be similar to Alternative A and impacts would be similar to those described under Alternative A. Additional management to maintain or improve habitat for migratory birds on a

case-by-case basis would support bird species to a greater degree compared to Alternative A. Alternative D would apply greater stipulations to protect important seasonal and sensitive habitat for fish and wildlife species compared to Alternative A.

Impacts to wildlife and fish habitat from the management for big game of would be the same as those described under Alternative A. Impacts to wildlife from additional management in Alternative D to protect big game parturition habitat, crucial winter range, and migration corridors would be similar to those described under Alternative A, but would not provide as much protection as Alternative D. The CSU management for migration corridors under Alternative D would provide greater protection for big game and could provide uninterrupted pathways for wildlife movement.

Impacts to wildlife and fish habitat from the management of fish would be similar to those described under Alternative A. Under Alternative D, additional management including avoiding surface disturbance within 100-year floodplains and fish-bearing streams would provide similar protection for fish and important habitat for fish reproduction than compared to Alternative A.

Impacts to wildlife and fish habitat from the management of special status plant species would be similar to those described under Alternative A. Under Alternative D, additional management could provide greater habitat protection and fewer disruptive activities, supporting wildlife and their habitat.

Impacts to wildlife and fisheries from the management of visual resources would be similar to those described for VRM Class I under Alternative A (225,703 acres). Under Alternative D, 1,178,718 acres would be managed as VRM Class II, 569,046 acres more than Alternative A; 738,311 acres would be managed as VRM Class III, 122,819 more acres than Alternative A; and 1,455,234 acres would be managed as VRM Class IV, 725,189 acres fewer than Alternative A. There would be more acres protected by VRM Class II, and less managed under VRM Class IV, which could support overall habitat health and habitat connectivity.

Impacts to wildlife and fisheries from ROW management would be the same as those described under Alternative A; however, under Alternative D, 286,289 acres would be managed as ROW exclusion areas. The management would protect fish and wildlife habitat from linear disturbances, surface disturbing activities, and habitat loss on 117,493 fewer acres as compared to Alternative A. Larger areas would be managed as avoidance areas, 1,388,618 acres under Alternative D, 652,480 more acres than Alternative A.

Impacts to wildlife and fisheries from recreation management would be similar to those described under Alternative A. Management of SRMAs would be similar to Alternative A, however fewer SRMAs and management for those SRMAs could reduce or prevent surface disturbing activities in some areas but to a lesser degree when compared to Alternative A.

Impacts to wildlife and fisheries from managing OHV areas would be the same as those described under Alternative A; however, managing transportation routes as open, closed, and limited to designated roads and trails would protect fish and wildlife habitat to a greater degree than described under Alternative A.

Impacts to wildlife and fisheries from the management of congressionally designated trails would be similar to those described under Alternative A. Under Alternative D, additional management of eligible and congressionally designated trails could reduce or prevent disturbance or loss of habitat for wildlife to a greater degree when compared to Alternative A.

Impacts to wildlife and fisheries from the management of WSAs would be similar to those described under Alternative B. Under Alternative D, if WSAs were not designated as wilderness, most of the areas would be managed as ACECs. Impacts to wildlife and fisheries from the management of ACECs are described further below.

Impacts to wildlife and fisheries from the management of the Red Desert Management Area (162,980 acres), Pine Mountain Management Area (62,760 acres), and Sugarloaf Basin Management Area (87,240 acres) would be very similar to Alternative A, although fewer management areas would be retained under Alternative D. Where protective management is applied, it would support forage, habitat, migration corridors, and other important areas for big game, raptors, and other wildlife species. The management could help prevent sediment runoff into aquatic habitat, support water quality, and protect riparian areas from sedimentation and erosion.

Impacts to wildlife and fisheries from the management of South Pass Historic Landscape ACEC, Little Mountain ACEC, Steamboat Mountain ACEC, and Special Status Plants ACEC would be the same as those described under Alternative A.

Impacts to wildlife and fisheries from not retaining the ACEC designations for Cedar Canyon, Greater Sand Dunes, Natural Corrals, Oregon Buttes, Pinnacles, and Pine Springs ACECs would be the same as those described under Alternative C.

Impacts to wildlife and fisheries from the management of National Historic Landmarks would be the same as those described under Alternative B.

Impacts to wildlife from reducing or minimizing risk to humans and the environment from hazardous materials would be the same as Alternative B.

### 4.7.4 Proposed RMP

The Proposed RMP is a combination of management actions primarily from Alternatives B and D and would have similar impacts as previously described under those alternatives. In general, the Proposed RMP would have increased protections for wildlife and fisheries compared to Alternatives A, C, and D, but fewer than Alternative B.

Impacts on wildlife and fisheries habitat from air quality management, geophysical activities, soil management, cultural resources, paleontological resources, wildland fire management, forest and woodland management, grassland and shrublands management, invasive species, riparian and wetland resources, pursuing land withdrawals, land disposals, land acquisitions, livestock grazing, OHV management, WSA management, and WSR management would be similar to those described under Alternative A and would not provide substantial differences in environmental consequences for wildlife and fisheries.

Impacts on wildlife and fisheries from the management of water resources would be similar to those described under Alternative A. Additionally, under the Proposed RMP, impacts on wildlife and fisheries from the management of water resources would generally be more restrictive for surface-disturbing activities than under Alternative D, but less restrictive than under Alternative B. Applying buffers and avoiding surface-disturbing activities and construction within aquatic systems, applying mineral stipulations, and only allowing linear crossings with site-specific analyses could support beneficial impacts on wildlife habitat and aquatic systems. The avoidance stipulation would protect streams and water resources to a lesser degree than Alternatives A and B, which prohibit permanent facilities. Under the Proposed RMP, additional management for aquifers and water quality could protect wildlife habitat and fishery resources to a greater degree than under Alternative A.

Under the Proposed RMP, lands with wilderness characteristics would not be specifically managed to protect their wilderness character, and beneficial impacts on wildlife and fisheries from management of these areas described under Alternative B would not occur. However, lands with wilderness characteristics generally overlap other special management areas, for example ACECs, and management of those other designations would have beneficial impacts on wildlife and fisheries (e.g., protections to limit surface-disturbing activities), similar to the effect described under Alternative A.

Impacts on wildlife and fisheries from mineral development would be similar to those described under Alternatives A and B. Under the Proposed RMP, closing 1,076,039 acres to fluid mineral leasing would reduce habitat loss for wildlife and would close 536,018 more acres than under Alternative A. In addition, most open acres would have NSO, CSU, and TLS that would provide some protections for wildlife and fisheries and avoid disturbance during sensitive periods. However, impacts on wildlife and fisheries from the management of fluid minerals under the Proposed RMP would be greater than under Alternative B, which has 1,110,179 more acres closed and 597,917 more acres with NSO stipulations than the Proposed RMP (Appendix V; Table 2-4). Compared to Alternative B, the Proposed RMP removes the NSO restriction within crucial winter range and reduces restrictions surrounding identified raptor nests to a CSU. With fewer NSO restrictions, more areas would be open to fluid mineral extraction under the Proposed RMP, which would have greater impacts on wildlife and fisheries compared to Alternative B. Under the Proposed RMP, there would be more areas closed to solid leasable minerals (coal, oil shale, and trona), which would reduce solid mineral–associated impacts on wildlife compared to Alternatives A, C, and D (see Appendix V; Table 2-7).

Impacts from locatable minerals on wildlife and fisheries would be similar to those described under Alternative A. Under the Proposed RMP, 510,207 fewer acres would be open to locatable minerals compared with Alternative A, and 927,080 more acres than Alternative B. In addition, the Proposed RMP would propose to withdraw 343,646 more acres from locatable mineral development than Alternative A, which would provide greater protections for wildlife and fisheries.

Impacts on wildlife and fisheries from saleable minerals would be as described under Alternative A, but with slightly larger area open for salable mineral disposal (81,531 more acres). Therefore, the Proposed RMP would have greater impacts on wildlife and fisheries over a larger area than Alternatives A and B, but fewer than Alternatives C and D.

Impacts on wildlife and fisheries from renewable energy development would be similar to those described under Alternative A, but impacts would be reduced because 821,898 fewer acres would be open for renewable energy development. Compared with Alternative B, the Proposed RMP allows for 648,576 more acres to be open without restrictions to renewable energy development (see Appendix V). This is similar to, but 303,625 acres less than, the area that would be open under Alternative D. The Proposed RMP removes the big game parturition and raptor concentration area restrictions. Therefore, the Proposed RMP would have greater impacts on big game and raptor concentration areas due to potential development impacts, compared to Alternative B. The Proposed RMP also removes “eligible but not designated” trails from the NHT corridor. With a reduced corridor, more area would be open for development, which could affect wildlife and fisheries, as described above under Alternative A.

Impacts on wildlife and fish habitat from the management of riparian and wetland resources would be similar to those described under Alternative A. Under the Proposed RMP, additional management for achieving Wyoming Rangeland Standards and PFC would maintain or improve wetland, riparian, and aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems. The Proposed RMP would also pursue acquisitions, where possible, to enhance riparian area management and therefore would benefit aquatic wildlife and fisheries to a greater extent than Alternative A.

Management for wildlife and fish would be similar to that of Alternative A, and impacts would be similar to those described under Alternative A. Additional management under the Proposed RMP, such as developing habitat management plans and evaluating grazing conflicts during permit renewals, would support wildlife and fisheries management. However, like Alternative D, the Proposed RMP would allow more development activities in big game migration corridors, big game crucial winter ranges and parturition areas, and raptor nest buffers than Alternatives A and B. This could result in greater impacts on wildlife and fisheries and would be evaluated more closely on a case-by-case basis and subject to adequate mitigation.

Impacts on wildlife and fisheries from management of special status species would be as described under Alternative A and primarily follow the management direction of Alternative B, except for management of special status plant species. The Proposed RMP would follow the management actions for special status plants proposed under Alternative D and would allow surface-disturbing activities within special status plant species habitat subject to adequate mitigation. This could result in increased impacts on wildlife and fisheries compared to management actions under Alternatives A and B, where there are more prohibited activities.

Impacts on wildlife and fisheries from the management of visual resources would be similar to those described under Alternative A, except more acres would be designated as VRM Class I (19 more acres than under Alternative A) and VRM Class II (718,332 more acres than under Alternative A). The management for VRM Class I and VRM Class II would retain the character of the landscape, which could allow for some surface disturbance as described under Alternative A, but would provide greater protection overall for wildlife and fisheries than VRM Class III and VRM Class IV designations.

Impacts on wildlife and fisheries from ROW management would be the same as those described under Alternative A except that, under the Proposed RMP, 821,989 fewer acres would be open, and a total of 921,059 acres would be managed as ROW exclusion areas (494,350 more acres than Alternative A). The decrease in acres open to ROW authorization and increased acreage designated as ROW exclusion areas under the Proposed RMP would result in increased protections for fish and wildlife habitat from linear disturbances, surface-disturbing activities, and habitat loss to a greater extent than Alternative A.

Impacts on wildlife and fisheries from the Proposed RMP designation of 12 ACECs would be greater than under Alternative B (16 designated ACECs), but less than under Alternatives A and D (10 ACECs). The Proposed RMP removes the Big Game Migration ACEC, which could result in increased constraint on the migration of big game by allowing multiple uses. Such uses could constrain the extent and suitability of migration habitat for big game, resulting in greater impacts on big game species. However, the Proposed RMP would require the development of a specific habitat management plan (HMP) to address big game migration corridors.

The Proposed RMP would designate a 10-mile-wide corridor around certain existing NHTs as the National Trail Management Corridor. The restrictions associated with these NHT corridors would protect wildlife and fisheries habitat in those locations. The extent of NHT corridors would be less under the Proposed RMP than under Alternative B, primarily because of the removal of the "eligible but not designated" trails. Designated NHTs within the NHT corridors would be changed to ROW avoidance areas that would provide some protection for wildlife and fisheries compared with Alternative A, but less than Alternative B.

Impacts from grazing on wildlife and fisheries would be the same as those described under Alternative A. The Proposed RMP allocates 3,596,265 acres as available for grazing, which is 4,861 acres more than allocated under Alternative A and 12,467 acres more than allocated under Alternative B.

Impacts on wildlife and fisheries from recreation management would be similar to those described under Alternative A. The Proposed RMP would have 159,505 fewer acres designated as SRMAs when compared to Alternative A, which would reduce recreation-related impacts on wildlife and fisheries to a greater extent than Alternative A.

# 4.8 SPECIAL STATUS SPECIES

## 4.8.1 Alternative B

Impacts to special status species from geophysical activities, pursuing land withdrawals, land disposals, land acquisitions, renewable energy, and WSR management would be the same as those described under Alternative A.

Impacts from air quality management would be the same as those described under Alternative A; however, measures to control dust could protect special status wildlife and fisheries habitat to a greater degree than compared to Alternative A.

Impacts to special status species from the management of soil resources would be similar to those described under Alternative A. However, additional management protection to soil resources could support special status wildlife habitat and fisheries resources to a greater degree compared to Alternative A.

Impacts to special status species from the management of water resources would be similar to those described under Alternative A. However, applying buffers to the prohibition of surface disturbing activities and new permanent structures within aquatic systems, applying mineral stipulations, and avoiding linear crossings would support wildlife habitat and aquatic systems. The management would support special status fish, macroinvertebrates, and other aquatic species' habitat by reducing erosion and nutrient inputs. Reducing erosion and nutrient inputs would support water quality, stream channel integrity, and prevent cementation of spawning gravel. The management could protect a larger area of riparian and wetland habitat that could support Ute ladies' tresses and meadow pussytoes. The additional management for aquifers and water quality could protect special status wildlife habitat and fisheries resources to a greater degree compared to Alternative A.

Managing all lands with wilderness characteristics to preserve those characteristics would prevent damage or loss of special status wildlife habitat from development activities, reduce disturbance to special status species from the presence of humans, vehicles or machinery, prevent erosion or runoff, and protect an intact ecosystem. The closed acres that are adjacent to riparian habitat or stream channels would protect important habitat for special status fish species such as flannelmouth sucker, bluehead sucker, and roundtail chub; avian species such as trumpeter swan, yellow-billed cuckoo, and bald eagle, amphibians, and other wetland and riparian wildlife species; and would support water quality within stream and river corridors. Precluding oil and gas development would prevent the introduction and spread of invasive, non-native plant species from machinery and vehicles, further supporting desired forage, cover, and contiguous habitat.

Under Alternative B, approximately 1,292 oil, gas, and CBNG wells would be developed within the planning area, 3,481 fewer wells as compared to Alternative A. There would be 8,892 acres of initial surface disturbance and 2,566 acres of long-term disturbance from oil and gas development, which is 23,939 fewer acres of initial surface disturbance and 6,900 fewer acres of long-term disturbance compared with Alternative A.

Closing 2,186,218 acres to fluid mineral leasing would reduce habitat loss for special status species. The closures would allow for contiguous, uninterrupted habitat, and would prevent oil and gas development on 1,646,197 more acres than under Alternative A. Closed lands that are adjacent to riparian habitat or stream channels (295,614 acres) could protect important habitat for special status fish, amphibians, birds, plant species, and would help support water quality. Special status plant species within the closed areas (319 acres) would be protected from surface disturbance, soil loss, and damage of surrounding habitat. Sage-grouse leks (86,447 acres) would be protected from surface disturbance or disruptive activity from oil and gas development within the closed areas.

Under Alternative B, 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. Lands that are adjacent to riparian habitat or stream channels (77,487 acres) could protect important habitat for fish, amphibians, birds, plant species, and would help support water quality. Special status plant species within the NSO stipulated areas (197 acres) would be protected from surface disturbance, soil loss, and damage of surrounding habitat.

Applying CSU and TLS to oil and gas leases could reduce damage or loss of vegetation and habitat for special status species (99,674 acres of CSU stipulations and 713,837 acres of TLS). Impacts to special status species from the application of CSU and TLS would be similar to those described under Alternative A, but smaller areas of habitat could receive some reduced impacts from oil and gas development and production activities, but much larger areas are managed as closed and NSO, providing greater habitat protection.

Approximately 1,993,908 acres of the planning area would be pursued for withdrawal from locatable mineral entry, 1,437,350 more acres than Alternative A, and 2,186,218 acres would be closed to geothermal leasing, 1,646,197 acres more than under Alternative A. The remaining acres in the planning area would be available for the development of locatable minerals and geothermal leasing. Impacts to special status wildlife and fisheries would be similar to those under Alternative A; however, a much larger area of land would be closed to geothermal leasing compared to Alternative A. Lands within the closed areas would not have surface disturbing activities from geothermal development, and special status wildlife and fish habitat would not be damaged from those activities.

Impacts to special status wildlife and fisheries habitat from the development of solid leasable minerals would be similar to those described under Alternative A. Under Alternative B, 3,535,546 acres would be closed to coal, 2,122,282 acres would be closed to oil shale, and 2,119,920 acres would be closed to trona leasing and development. The protections to lands closed to solid mineral development would be applied to 2,741,709 more acres of land closed to coal, 1,394,477 more acres of land closed to oil shale, and 1,665,326 more acres of land closed to trona compared to Alternative A.

Closing 2,581,741 acres of lands to saleable mineral development would prevent damage or loss of special status species habitat from mineral excavation on 1,748,022 more acres compared to Alternative A. Impacts to special status species habitat would be similar to those described under Alternative A, but a much greater area of land would be closed to surface disturbing activities, protecting vegetation, preventing erosion and runoff, and ensuring greater habitat connectivity.

Impacts to special status species from wildland fire management would be similar to those described under Alternative A. Additional management to protect water quality would support special status fish, wetland birds, and amphibians to a greater degree compared to Alternative A.

Under Alternative B, forest and woodland management would be similar to the management and impacts described under Alternative A; however, Alternative B emphasizes the use of natural processes for forestry management in addition to not allowing clearcutting. The management in Alternative B would support forest and woodland habitat for special status species by encouraging natural habitat conditions, native vegetation, cover, forage, and functional ecosystems.

Impacts to special status species habitat from management of grassland and shrubland communities would be very similar to those described under Alternative A. Resting lands from livestock grazing for a minimum of five growing seasons after treatments would allow treated areas to revegetate, soils to stabilize, and vegetation to mature to the point of withstanding livestock grazing pressure. Rested areas could provide wildlife with new vegetation for cover habitat and forage without competition with livestock during the rest period.

Impacts to special status species habitat from invasive species and pest management would be similar to those described under Alternative A. Additional management for invasive plant species control through only mechanical or biological methods would protect vegetation and special status species habitat from damage from more invasive control methods, such as chemicals or fire. However, less invasive techniques may not be as effective in controlling large infestations of noxious weeds as chemicals or fire. Under Alternative B, additional management for preventing and controlling the infestation of aquatic invasive species could support wetland, riparian, and aquatic habitat for special status fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems. The management would help prevent the infestation of riparian and aquatic habitat from non-native species, which would help maintain native ecosystems for forage and cover for special status wildlife and could support water quality and quantity for special status fish and amphibians.

Impacts to special status species habitat from management of riparian and wetland resources would be similar to those described under Alternative A. Additional management for achieving PFC would maintain or improve wetland, riparian, and aquatic habitat for special status fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems. The management could help reduce sediment runoff into aquatic systems, reducing siltation of spawning habitat for special status fish, improving water quality, and preventing erosion of streambanks.

Impacts to special status species from the management for wildlife and fish would be similar to Alternative A. Additional management under Alternative B such as adjustments to livestock and wild horse management could help maintain or improve habitat by preventing vegetation loss, removing competition for forage, and reducing the introduction or spread of invasive, non-native plant species. Maintaining and improving habitat for migratory bird species of conservation concern could support habitat for avian species such as the ferruginous hawk, Northern goshawk, and trumpeter swan. The management could support existing nesting, feeding, or breeding habitat, or could allow for mitigation to restore areas of habitat if losses were suffered elsewhere in the planning area. Alternative B would apply greater stipulations to protect important seasonal and sensitive habitat for special status fish and wildlife species. Stipulations for no net loss of habitat and prohibiting renewable energy projects in sensitive habitats would prevent the loss or damage of important habitat areas for forage, hunting, nesting, breeding, young rearing, and migration of special status wildlife species. The management could also protect wetland, riparian, and aquatic habitat for special status fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems.

Impacts to special status species habitat from the management for big game of would be similar to those described under Alternative A. Additional management to protect big game parturition habitat, crucial winter range, and migration corridors could support special status species that use seasonal habitat. The management could ensure reproductive success and survival of young, reduce winter mortality associated with increased stress caused by human-induced disturbance, and provide migration corridors that link crucial habitats (winter range) and breeding, nesting, and brood rearing areas.

Impacts to special status species habitat from the management of raptors would be similar to those described under Alternative A. Under Alternative B, additional management would protect raptors through seasonal closures, greater buffer distances, preventing surface disturbance or occupancy within one mile of active and historic nests, and locating infrastructure away from high avian-use areas. The management would provide greater protection by reducing disturbance to raptors during critical life phases, preventing the risk of collisions with wires or structures, and protecting important habitat for nesting, breeding, or hunting as compared to Alternative A.

Impacts to special status species habitat from the management of fish would be similar to those described under Alternative A. Under Alternative B, additional management would provide specific timeframes for seasonal restrictions and buffer distances (¼ mile), which could provide greater protection for special status fish and important habitat for fish reproduction to a greater degree than compared to Alternative A. Closing fish bearing streams to solid mineral leasing would support fisheries and stream health, and protect wetland, riparian, and

aquatic habitat for fish, macroinvertebrates, waterfowl, and other species dependent on these ecosystems. The restrictions could help prevent sediment runoff into aquatic systems, preventing siltation of spawning habitat, improving water quality, and preventing erosion of streambanks. The management could also provide additional protection to special status plants that inhabit riparian areas, such as Ute ladies' tresses.

Impacts to special status species habitat from the management of special status plant species would be similar to those described under Alternative A. Under Alternative B, additional management could provide greater habitat protection and fewer disruptive activities, supporting special status plant and wildlife species and their habitat. The additional management could help prevent sediment runoff into aquatic systems, preventing siltation of spawning habitat, improving water quality, and preventing erosion of streambanks. Protecting some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain would protect these ecosystems from damage or disturbance and protect the special status wildlife that inhabit these areas.

Impacts to special status species habitat from the management of special status wildlife species would be similar to those described under Alternative A. Under Alternative B, additional management to protect habitat and reintroduce species would provide greater habitat protection for special status wildlife and fish, and reintroduction of species could fill key niches in ecosystems.

Impacts to special status species habitat from the management of cultural resources would be similar to those described under Alternative A. Under Alternative B, additional management such as buffer distances, NSO stipulations, and closures to mineral sales to prevent surface disturbing activities would prevent damage or removal of special status species cover and forage, reduce fragmentation of habitat, and prevent disturbance of wildlife.

Impacts to special status species from the management of visual resources would be similar to those described under Alternative A for VRM Class I (225,785 acres, 68 acres more than Alternative A), VRM Class III (666,522 acres, 51,030 acres more than Alternative A), and for the Gateway West Pipeline. Approximately 14,081 acres of rivers or navigable waters would be protected from surface disturbance within the VRM Class I areas. Approximately 11,675 acres of sage-grouse leks, 374 acres of special status plants, and 57,171 acres of rivers or navigable waters could be vulnerable to surface disturbing activities within the VRM Class III areas. Under Alternative B, 2,148,902 acres would be managed as VRM Class II, 1,566,230 more acres than Alternative A. The management for VRM Class II would retain the character of the landscape, which could allow for some surface disturbance, as described under Alternative A, but the classification of 2,148,902 acres would provide greater protection overall for special status species. Approximately 19 acres of special status plants, and 211,579 acres of rivers or navigable waters could be protected from surface disturbance within the VRM Class II areas. Under Alternative B, 563,754 acres would be managed as VRM Class IV, 1,616,669 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class IV would be the same as those described under Alternative A, but fewer acres would be subjected to the level of surface disturbance allowed within the VRM Class IV classification. Approximately 12,524 acres of sage-grouse leks, 94 acres of special status plants, and 48,946 acres of rivers or navigable waters could be affected by surface disturbing activities within the VRM Class IV areas.

Impacts to special status species from ROW management would be the same as those described under Alternative A; however, under Alternative B, 2,480,876 acres would be managed as ROW exclusion areas. The management would protect special status species habitat from linear disturbances, surface disturbing activities, and habitat loss on 2,130,936 more acres as compared to Alternative A. Approximately 486 acres of special status plants, and 270,305 acres of rivers or navigable waters would be protected from disruptive activities within the exclusion areas. Larger areas would be managed as avoidance areas, 133,903 acres under Alternative B, 602,235 more acres than Alternative A. Approximately 24,033 acres of rivers or navigable waters would be less likely to be subject to disruptive activities within the avoidance areas.

Impacts to special status species from livestock grazing management would be similar to those described under Alternative A. In addition, application of monitoring, greater protection of riparian areas and springs, and additional range improvements would provide greater protection of special status fish and wildlife habitat as compared to Alternative A. The additional management could help maintain or improve habitat by reducing congregation of livestock in sensitive areas and prevent or reduce damage to forage and cover. The management could prevent or reduce compaction or erosion of soils, and reduce the influx of nutrients into riparian areas, wetlands, or streambeds, which could support water quality and riparian vegetation within these areas. Removal of fences reduces threats of injury or death from impacts with fences, enhances migration corridors, and could allow access to additional forage and cover.

Impacts to special status species from recreation management would be similar to those described under Alternative A. Additional management to consider other resource values, buffer distances, and mineral lease stipulations and closures could help maintain or improve habitat for special status fish and wildlife to a greater degree than Alternative A.

Under Alternative B, the Wind River Front SRMA (257,680 acres) would not be retained. This could reduce vegetation damage, surface disturbance, and disruption of special status wildlife from human or vehicle presence caused by recreation use to a greater degree than Alternative A. Other management within the Wind River Front area would have similar impacts to special status wildlife and fisheries compared to Alternative A, but with greater protection to lands from mineral stipulations and other surface disturbance prohibitions.

Impacts to special status species from managing OHV open and closed areas would be the same as those described under Alternative A. Under Alternative B, there would be no category called "limited to existing roads and trails." While the routes would be moved under the "limited to designated roads and trails" for a total of 3,367,576 acres impacts to wildlife and fish habitat would be similar to those described under both categories under Alternative A. Additional management to prohibit and limit OHV use could provide greater protection to special status species from damage to habitat and help to prevent soil loss, erosion, and runoff to riparian habitat, and the introduction or spread of invasive, non-native plant species as compared to Alternative A. Within the open areas, there are 377 acres of land adjacent to rivers which could be subject to noise, dust, possible habitat damage, and sediment runoff that could degrade water quality and spawning habitat for special status fish species. Within the designated areas, there are 85,407 acres of sage-grouse leks, 318,113 acres of land adjacent to rivers, and 487 acres of special status plant habitat which could be subject to noise, dust, and some sediment runoff. Within the closed areas, there are 136 acres of special status plant habitat, and 13,908 acres of land adjacent to rivers which would have reduced surface disturbance, less noise from vehicles, and less runoff into streams.

Impacts to special status species from recreation management would be similar to those described under Alternative A. Under Alternative B, management of eligible and congressionally designated trails could reduce or prevent disturbance or loss of habitat for special status species to a greater degree when compared to Alternative A. Managing historic trail segments under Alternative B could prevent or reduce surface disturbance, damage, or removal of wildlife cover and forage, reduce fragmentation of habitat, and reduce disturbance of special status species.

Impacts to special status species from the management of WSAs would be similar to those described under Alternative A. Additional management under Alternative B for visual resources could provide greater habitat protection beyond the perimeter of the WSAs by preventing or reducing surface disturbing activities within viewsheds. Preventing or reducing surface disturbing activities from VRM Class I and II areas would maintain contiguous habitat for forage, cover, migration, and important life cycles of special status Species.

Under Alternative B, the Red Desert Watershed Management Area would be divided into a management area (164,140 acres) and the remainder added to the Steamboat Mountain ACEC (439,330 acres). Impacts to special status species from the management of the area would be similar to those described in Alternative A, but additional

management could further reduce surface disturbance, human and vehicle presence, and a reduction in predation of smaller special status wildlife species. The remaining management areas listed in Alternative A would be managed as ACECs under Alternative B.

The Greater Red Creek ACEC would be expanded from 131,600 acres in Alternative A to 468,170 acres, and the Monument Valley ACEC (69,960 acres), and Big Sandy Openings ACEC (2,020 acres) would be designated in Alternative B. The expansion and designations would allow for greater protection of habitat for special status Species through management such as ROW exclusion, closed to mineral leasing, limited vehicle use, vegetation management, and protective management for wildlife. The management would support forage, habitat, migration corridors, and other important areas for special status species, especially sagebrush obligate species. Closed areas would result in less disturbance or stress to wildlife from vehicles and human presence, which would support the overall health of special status species. Management to protect special status plant species could help prevent disturbance or damage to special status plants and could help maintain the integrity of surrounding soils and vegetation.

Designating the Pinnacles ACEC (1,340 acres) would protect habitat for special status species through management such as ROW exclusion, closed to mineral sales, and limiting surface disturbing activities. The management would support forage, habitat, migration corridors, and other important areas for special status wildlife species.

Impacts to wildlife and fisheries from retaining the designation of the Cedar Canyon ACEC (2,550 acres) would be similar to Alternative A, but additional management would allow for greater habitat protection under Alternative B. Closing the area to mineral development, prohibiting motorized and non-motorized use, preparing reclamation plans, and other resource protection could reduce or prevent loss of habitat for special status wildlife in that area. Vegetation management and habitat enhancement for special status raptors and other wildlife could maintain or improve overall habitat for special status species and could provide nesting habitat and hunting perches for raptors and other avian species.

Impacts to special status species from retaining the designation of the Greater Sand Dunes ACEC (including the Crookston Ranch and Boar's Tusk Portions, 39,290 acres) and the Oregon Buttes ACEC would be the same as those described under Alternative A.

Impacts to special status species from the management of the Eastern Portion of the Greater Sand Dunes ACEC would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence.

Impacts to special status species from the management of the Natural Corrals ACEC (1,110 acres) would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to special status wildlife from vehicles, machinery, or human presence. Preventing or reducing surface disturbing activities in the ACEC would maintain contiguous habitat for forage, cover, migration, and important life cycles of special status species.

Impacts to special status species from the management of the Pine Springs ACEC (6,480 acres) would be similar to those described under Alternative A. The ACEC would be expanded an additional 430 acres under Alternative B. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to special status species from vehicles, machinery, or human presence.

Impacts to special status species from the management of the Special Status Plant Species ACEC (3,610 acres) would be similar to those described under Alternative A. The ACEC would be expanded an additional 2,510 acres under Alternative B and additional protective management for special status plants would be applied. The

additional acres and management would provide greater protection for suitable plant habitat, which would support continued existence and regeneration of small rock cress, precocious milkvetch, Wyoming tansymustard, and hairy greenthread.

Impacts to special status species from the management of the Steamboat Mountain ACEC (439,330 acres) would be similar to those described under Alternative A. The ACEC would be expanded an additional 392,050 acres under Alternative B. The inclusion of additional land and protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to special status species from vehicles, machinery, or human presence. Management to protect special status plant species would prevent disturbance or damage to special status plants and could help maintain the integrity of surrounding soils and vegetation.

Impacts to special status species from the management of the White Mountain Petroglyphs ACEC (20 acres) would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to special status species from vehicles, machinery, or human presence.

Designating and managing the South Wind River ACEC (374,710 acres) for visual, crucial habitat, special status plants, and other values could improve, enhance, or maintain special status species habitat. Protective management to prevent or reduce surface disturbance, ROW exclusion, and closures to mineral leasing could provide protection of habitat and reduce disturbance to special status wildlife from vehicles, machinery, or human presence. Preventing or reducing surface disturbing activities in the ACEC would maintain contiguous habitat for forage, cover, migration, and important life cycles of special status species.

The management could reduce the introduction or spread of invasive, non-native plant species, which would protect native habitat. Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation.

Impacts to special status species from reducing or minimizing risk to humans and the environment from hazardous materials would be similar to Alternative A. In addition, restoration of contaminated lands could reduce damage to wildlife habitat, help reduce runoff of contaminants into riparian and aquatic systems, and provide additional habitat for special status species.

## 4.8.2 Alternative C

Impacts to special status species from the management of water, geophysical, riparian and wetland, raptors, cultural, pursuing land withdrawals, land disposals, land acquisitions, and renewable energy resources would be the same as those described under Alternative A.

Impacts to special status species from air quality management would be the same as those described under Alternative B, with the exception of dust abatement measures, which would be the same as Alternative A.

Impacts to special status species from the management of soil and water resources would be similar to those described under Alternative A. Fewer protections to highly erodible soils under Alternative C could result in the potential for increased soil erosion, soil loss, and sediment runoff to a greater degree when compared to Alternative A.

Lands with wilderness characteristics would not be managed for wilderness characteristics under Alternative C. These lands would be managed for other resource uses or resource values. Protective management applied under

Alternative B would not be applied in Alternative C and could allow surface disturbing or disruptive activities to occur on these lands.

Approximately 4,919 oil, gas, and CBNG wells would be developed under Alternative C within the planning area, 146 more wells compared to Alternative A. There would be 33,840 acres of initial surface disturbance and 9,758 acres of long-term disturbance from oil and gas development, with 1,009 more acres of initial surface disturbance and 292 more acres of long-term disturbance compared with Alternative A.

Closing 225,782 acres to fluid mineral leasing would reduce habitat loss, would allow for contiguous, uninterrupted habitat, and would close 314,239 fewer acres than under Alternative A. Impacts to special status wildlife and fisheries would be the same as those described under Alternative A, however, surface disturbance and disruptive activities could occur over larger areas under Alternative C. No river or navigable waters and habitat for special status plant species would be included within the closed areas under Alternative C.

Under Alternative C, 15,542 acres would be managed with NSO stipulations, which is 143,069 fewer acres than Alternative A. Impacts to special status wildlife and fisheries would be the same as those described under Alternative A; however, surface disturbance and disruptive activities could occur over larger areas under Alternative C. No river or navigable waters and habitat for special status plant species would be included within the NSO stipulated areas under Alternative C.

Applying CSU stipulations to 215,890 acres could reduce damage or loss of vegetation and habitat for wildlife, 505,242 fewer acres compared to Alternative A. Applying TLS to 1,355,485 acres could seasonally reduce surface disturbance or disruptive activities in sensitive habitat for raptors, or other special status species, 485,482 less acres compared to Alternative A. Impacts to special status wildlife and fisheries from the application of CSU and TLS would be similar to those described under Alternative A, but overall, less habitat would receive reduced impacts from oil and gas development and production activities.

Approximately 234,961 acres of the planning area would be pursued for withdrawal from locatable mineral entry, 321,597 fewer acres compared to Alternative A. Approximately 225,782 acres of the planning area would be closed to geothermal leasing, 314,239 fewer acres compared to Alternative A. Impacts to special status species would be the same as those described under Alternative A, however, surface disturbance and disruptive activities could occur over more acres under Alternative C.

Impacts to special status species from the development of coal, oil shale, and trona resources would be similar to those described under Alternative A. Under Alternative C, 226,219 acres would be closed to coal, which would be a 259,745 acre reduction compared with Alternative A. Approximately 225,965 acres would be closed to both oil shale and trona leasing and development, which would be a 501,840 acre reduction for oil shale and a 228,629 acre reduction for trona. The smaller areas of closures could result in increased damage or loss of habitat from development activities and increased disturbance to special status species from the presence of humans when compared to Alternative A.

Approximately 226,421 acres of the planning area would be closed to saleable mineral development, 607,298 fewer acres compared to Alternative A. Impacts to special status species would be the same as those described under Alternative A, however, surface disturbance and disruptive activities could occur over larger areas of land under Alternative C.

Impacts to special status species from wildland fire management and forest and woodland management would be the same as those described under Alternative A. Under Alternative C, allowing the harvest of cottonwood trees could remove nesting habitat for bald eagle and long-eared myotis. Harvest activities could disturb nearby wildlife from human presence, machinery, and vehicles, and cause surface disturbance, which could remove vegetation and cause erosion. Surface disturbance could result in runoff into aquatic systems, causing siltation of spawning

habitat, diminished water quality, and erosion of streambanks. Erosion and increased runoff could continue in harvest areas until new vegetation was established.

Impacts to special status species habitat from the management of grassland and shrubland communities would be very similar to those described under Alternative A. Use of non-native species could help stabilize soils and prevent erosion in the short-term, and over the long-term could provide stable land for native species to re-establish. Some non-native plants may not provide appropriate cover or forage values for special status wildlife, and the use of non-native plants increases the risk of spread and eventual degradation of native habitat values.

Impacts to special status species habitat from invasive species and pest management would be similar to those described under Alternative A. Additional management for invasive plant species control through various methods, including chemicals, the use of BMPs, and buffer distances for chemical use could reduce the infestation and spread of invasive species to a greater degree than Alternative A. The management would help prevent the infestation of riparian and aquatic habitat from non-native species, which would help maintain native ecosystems for forage and cover for special status wildlife and could support water quality and quantity. Management to protect special status plants, wetlands, riparian areas, and aquatic habitats through buffers for chemical use would prevent accidental application or spills and protect special status plants from accidental contact with herbicides.

Impacts to special status species habitat from the management for wildlife and fish would be similar to Alternative A, and impacts would be similar to those described under Alternative A. Additional management under Alternative C by prioritizing livestock and raising grazing levels could increase competition for forage and habitat resources between livestock and special status wildlife. Increased use by livestock could cause loss of vegetation for forage and cover, soil compaction, erosion, trampling of vegetation and habitat, and the spread of invasive, non-native plant species. Retaining fences could impact special status wildlife by creating travel barriers, altering distribution patterns, increasing stress and energy loss, and could cause injury or death from entanglement.

Management to allow renewable energy projects in sensitive wildlife habitats could result in habitat damage or loss of raptor concentration areas (high-use/high-density raptor nesting/roosting/perching areas), and unique habitats (e.g., aspen and mountain shrub). Renewable energy development could result in displacement of some special status wildlife and raptor species from breeding and foraging habitat within the construction area. Construction of wind turbines throughout the planning area may create collision hazards for raptors, bats, and multiple avian species. Studies have documented deaths of avian and bat species from wind turbines, although the levels of collision and death vary in the scientific research (Madders and Whitfield 2006). Collision levels fluctuate based on habitat, terrain, elevation, and even weather conditions (Madders and Whitfield 2006). Prediction of accurate bird or bat losses from wind development is currently not available; however, it could be assumed that some losses of these species will occur.

Impacts to special status species habitat from the management for big game of would be the same as those described under Alternative A. Impacts to special status species from additional management in Alternative C would protect big game parturition habitat, crucial winter range, and migration corridors.

Under Alternative C, seasonal restrictions for surface disturbance near spawning fish populations would not be applied. Allowing surface disturbing activities along fish bearing streams near spawning, incubation, and fry rearing habitat could lead to sediment runoff and accumulation of fine silts in stream channels which could cause cementation of spawning gravel for special status fish species. Increased sediment could affect water quality for and aquatic habitat for special status fish, waterfowl, macroinvertebrates, and other species dependent on these ecosystems.

Impacts to special status species habitat from the management of special status plant species would be similar to those described under Alternative A. Under Alternative C, allowing more opportunities for surface disturbing activities near special status plant species could degrade habitat in surrounding areas or allow for the introduction

and spread of invasive, non-native plant species. Invasive plants could compete with special status plants and reduce available habitat for special status plants to reproduce. Eventually, non-natives could out-compete some special status plant species if monitoring did not identify the threat in time.

Impacts to special status species from the management of visual resources would be very similar to those described under Alternative A. Management for VRM Class I would be 226,629 acres, 912 acres more than Alternative A; VRM Class II would be 607,899 acres, 25,227 acres more than Alternative A; VRM Class III would be 395,683 acres, 219,809 fewer acres than Alternative A; and VRM Class IV, 2,374,706 acres, 194,283 acres more than Alternative A. There would be slightly more acres protected by VRM Classes I and II, but nearly 200,000 more acres subjected to surface disturbing and disruptive activities within VRM Class IV compared to Alternative A.

Impacts to special status species from ROW management would be similar to those described under Alternative A. Under Alternative C, 225,784 acres would be managed as ROW exclusion areas, 200,925 fewer acres compared to Alternative A. Under Alternative C, 31,018 acres would be managed as ROW avoidance areas, 705,120 fewer acres compared to Alternative A. Surface disturbing and disruptive activities from ROW development could damage or remove forage and habitat for wildlife species to a greater degree than under Alternative A.

Impacts to special status species from livestock grazing management would be similar to those described under Alternative A. Additional management under Alternative C by allowing livestock in riparian areas could increase competition for forage and habitat resources between livestock and special status species. Increased use by livestock could cause loss of vegetation for forage and cover, soil compaction, erosion, trampling of vegetation and habitat, and the spread of invasive, non-native plant species. Use of riparian areas by livestock could increase runoff and accumulation of fine silts in stream channels which could cause cementation of spawning gravel for special status fish species. Increased sediment could affect water quality and aquatic habitat for special status fish, amphibians, macroinvertebrates, and other species dependent on these ecosystems. Implementation of the Wyoming Land Health Standards could ensure that habitat for wildlife is not degraded by over-use of livestock.

Under Alternative C, reducing total authorized use to highest level of billed use over the last 10 years could provide increased forage and habitat resources for special status species. Reducing use to 160,387 AUMs could reduce habitat degradation from livestock, which could support water quality and availability, and allow a more natural grazing pattern from wildlife use. However, because management of livestock under this alternative would be very similar to the levels of actual use that have historically occurred in the planning area, it is likely that few changes would occur beyond those described under Alternative A.

Impacts to special status species from recreation management would be similar to those described under Alternative A; however, the emphasis of recreation use over other resources could result in more surface disturbing or disruptive activities to occur.

Impacts to special status species from the management of the Wind River Front SRMA (257,680 acres) would be similar to those under Alternative A for recreation and the management of the SRMA. The emphasis of the SRMA management for recreation use, including increased use of motorized vehicles, and allowing increased surface disturbing activities and mineral leasing would lead to habitat loss and abandonment of habitat to a greater degree when compared to Alternative A.

Impacts to special status species from managing OHV areas would be the same as those described under Alternative A. Under Alternative B, there would be no category called “limited to existing roads and trails.” While the routes would be moved under the “limited to designated roads and trails” for a total of 3,367,576 acres, impacts to special status species habitat would be similar to those described under both limited to designated and existing categories under Alternative A.

Impacts to special status species from the management of eligible and congressionally designated trails would be similar to those described under Alternative A. Under Alternative C, allowing surface disturbing activities, mineral development, and other disruptive activities could result in more habitat damage or loss.

WSAs would be managed for multiple use and WSRs, ACECs, and other management areas would not be retained under Alternative C. This management would result in fewer protections to special status species fish, wildlife, and plants as compared to Alternative A.

Impacts to special status species from public safety management would be the same as those described under Alternative B.

### 4.8.3 Alternative D

Impacts to special status species habitat from geophysical activities, wildland fire, raptors, special status wildlife species, cultural, paleontological, pursuing land withdrawals, land disposals, land acquisitions, renewable energy, and WSR management would be the same as those described under Alternative A.

Impacts to special status species from air quality management would be the same as those described under Alternative B, with the exception of dust abatement measures, which would not be required under Alternative D. Applying dust abatement measures on a case-by-case basis could reduce dust accumulation.

Impacts to special status species from the management of soil resources would be similar to those described under Alternative A. However, additional management to protect soil resources could support special status wildlife, fisheries, or plants a greater degree compared to Alternative A.

Impacts to special status species from the management of water resources would be similar to those described under Alternative A. Applying buffers and the avoidance of surface disturbing activities and construction within aquatic systems, applying mineral stipulations, and avoiding linear crossings could support special status species habitat and aquatic systems, but to a lesser degree compared to Alternative A.

Impacts to special status species from the management of lands with wilderness characteristics would be similar to those described under Alternative B; however, fewer areas would be managed specifically for those characteristics and fewer restrictions on surface disturbance would be applied. Managing lands for a variety of uses could reduce some damage or loss of special status species habitat from development activities, reduce disturbance to special status wildlife from the presence of humans, vehicles, or machinery, or reduce erosion or runoff.

Under Alternative D, approximately 4,737 oil, gas, and CBNG wells would be developed within the planning area, 36 fewer wells as compared to Alternative A. There would be 32,587 acres of initial surface disturbance and 9,397 acres of long-term disturbance from fluid mineral development; which is 244 fewer acres of initial surface disturbance and 69 fewer acres of long-term disturbance compared with Alternative A.

Closing 768,989 acres to fluid mineral leasing would close 228,968 more acres than under Alternative A. Closing land to new oil and gas development would protect smaller areas of habitat compared to Alternative A. Riparian areas and stream habitat (67,224), and special status plants (170 acres) would be protected from surface disturbance or disruptive activity from oil and gas development within the closed areas to a lesser degree compared to Alternative A.

Under Alternative D, 2,172 acres would be managed with NSO stipulations, which is 156,439 fewer acres than under Alternative A. Smaller areas of grassland and sagebrush would be protected from surface disturbance and disruptive activity under Alternative D, which could reduce habitat connectivity for swift fox, ferruginous hawk,

burrowing owl, and pygmy rabbit. Lands that are adjacent to riparian habitat or stream channels (35,384 acres) could protect important habitat for fish, amphibians, birds, and plant species, and would help support water quality within a smaller area compared to Alternative A. Special status plant species within the NSO stipulated areas (177 acres) would be protected from surface disturbance, soil loss, and damage of surrounding habitat within about 321 fewer acres compared to Alternative A.

Applying CSU and TLS to oil and gas leases could reduce damage or loss of vegetation and habitat for special status wildlife species (1,238,899 acres of CSU stipulations and 1,911,167 acres of TLS). Impacts to special status species from the application of CSU and TLS would be similar to those described under Alternative A, but slightly larger areas of habitat could receive some reduced impacts from CSU and TLS for oil and gas development and production activities.

Approximately 482,272 acres of the planning area would be pursued for withdrawal from locatable mineral entry, 74,286 fewer acres than Alternative A, and 768,989 acres would be closed to geothermal leasing, 228,968 more acres than under Alternative A. The remaining acres in the planning area would be available for the development of locatable minerals and geothermal leasing. Impacts to special status species would be similar to those described under Alternative A. Lands within the closed and withdrawn areas would be affected by surface disturbing activities from excavation of locatable minerals and geothermal development, and habitat for special status species would not be damaged from those activities.

Impacts to special status species habitat from the development of solid leasable minerals would be similar to those described under Alternative A. Under Alternative D, 610,342 acres would be closed to coal leasing, 124,378 more acres than under Alternative A, 1,557,520 acres would be closed to oil shale leasing, 829,715 more acres than Alternative A, and 389,552 acres would be closed to trona leasing, 34,081 fewer acres than Alternative A. The smaller areas of coal, and trona closures could result in increased damage or loss of habitat from development activities and increased disturbance to special status species from the presence of humans when compared to Alternative A.

Closing 362,009 acres of lands to saleable mineral development would prevent damage or loss of special status species habitat from mineral excavation on 471,710 fewer acres compared to Alternative A. Impacts to special status species habitat would be similar to those described under Alternative A, but smaller areas of land would be closed to surface disturbing activities, allowing for surface disturbance, erosion, vegetation loss, and habitat fragmentation.

Impacts to special status species from forest and woodland management would be similar to those described under Alternative A. In addition, Alternative D would limit logging operations on slopes steeper than 25%, which could help prevent or reduce soil loss and erosion from logging operations. Reducing or preventing soil loss and erosion could reduce sediment build up in streams, which could protect water quality and spawning gravel for fisheries. Under Alternative D, allowing the harvest of cottonwood trees could remove nesting habitat for birds and bats, disturb nearby wildlife from human presence, machinery and vehicles, and cause surface disturbance which could remove vegetation and cause erosion. Surface disturbance could result in runoff into aquatic systems, causing siltation of spawning habitat, diminished water quality, and erosion of streambanks. Erosion and increased runoff could continue in harvest areas until new vegetation is established.

Impacts to special status species habitat from management of grassland and shrubland communities would be the same as those described under Alternative C.

Impacts to special status species habitat from management of riparian and wetland resources would be similar to those described under Alternative A. Additional management for achieving Wyoming Rangeland Standards and PFC would maintain or improve wetland, riparian, and aquatic habitat for special status fish, macroinvertebrates,

waterfowl, and other species dependent on these ecosystems. The management could reduce runoff into aquatic systems, reducing siltation of spawning habitat, improving water quality, and preventing erosion of streambanks.

Management for special status species would be similar to Alternative A and impacts would be similar to those described under Alternative A. Additional management to maintain or improve habitat for migratory birds on a case-by-case basis would support special status bird species to a greater degree compared to Alternative A. Alternative D would apply greater stipulations to protect important seasonal and sensitive habitat for special status species compared to Alternative A.

Impacts to special status species habitat from the management for big game would be the same as those described under Alternative A. Impacts to wildlife from additional management in Alternative D to protect big game parturition habitat, crucial winter range, and migration corridors would be similar to those described under Alternative B, but would not provide as much protection as Alternative B.

Impacts to special status species habitat from the management of fish would be similar to those described under Alternative A. Under Alternative D, additional management including avoiding surface disturbance within 100-year flood plains and fish-bearing streams could provide greater protection for special status fish and important habitat for fish reproduction than compared to Alternative A.

Impacts to special status species habitat from the management of special status plant species would be similar to those described under Alternative A. Under Alternative D, additional management could prevent surface disturbance, soil loss, and direct damage or mortality of special status plants within the planning area.

Impacts to special status species from the management of visual resources would be the same as those described under Alternative A for VRM Class I (225,703 acres, 14 acres fewer than Alternative A), and for the Gateway West Pipeline. Under Alternative D, 1,178,718 acres would be managed as VRM Class II, 569,046 more acres than Alternative A. The management for VRM Class II would retain the character of the landscape, which could allow for some surface disturbance, as described under Alternative A, but the classification of 1,178,718 acres would provide greater protection overall for special status species. Approximately 147,976 acres of streams and riparian habitat could be protected from surface disturbance within the VRM Class II areas. Under Alternative D, 738,311 acres would be managed as VRM Class III, 122,819 more acres than Alternative A, and 1,455,234 acres would be managed as VRM Class IV, 725,189 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class III and IV would be the same as those described under Alternative A, but fewer acres would be subjected to the level of surface disturbance allowed within the VRM Class IV classification. Approximately 98,271 acres of streams and riparian habitat could be vulnerable to surface disturbing activities within the VRM Class III areas. Approximately 70,276 acres of streams and riparian habitat could be affected by surface disturbing activities within the VRM Class IV areas.

Impacts to special status species from ROW management would be the same as those described under Alternative A; however, under Alternative D, 286,289 acres would be managed as ROW exclusion areas. The management would protect special status species habitat from linear disturbances, surface disturbing activities, and habitat loss on 117,493 fewer acres as compared to Alternative A. Approximately 238 acres of special status plant habitat, and 17,650 acres of streams and riparian habitat would be protected from disruptive activities within the exclusion areas. However, more acres would be managed as avoidance areas, 1,388,618 acres under Alternative D, 652,480 more acres than Alternative A. Approximately 244,969 acres of stream and riparian habitat could be protected from disruptive activities within the avoidance areas, which is more acres when compared to Alternative A.

Impacts to special status species from livestock grazing management would be very similar to those described under Alternative A. In addition, the Pine Creek Special Status Plant exclosure would protect the only known population of small rockcress (*Arabis pusilla*) from livestock grazing and OHV use. The McKinnon Special Status Plant Exclosure is designed to protect precocious milkvetch (*Astragalus proimanthus*), which is only known to

occur within 10 square miles near McKinnon. The exclosure would also protect this species from livestock grazing and OHV use.

Impacts to special status species from recreation management would be the same as those described under Alternative A. Management of SRMAs would be similar to Alternative A, however fewer SRMAs but to a lesser degree compared to Alternative A.

Impacts to special status species from managing OHV areas would be the same as those described under Alternatives A and B. Within the areas closed to OHV use under Alternative D there are 932 acres of sage-grouse leks which would be subject to reduced surface disturbance, less noise from vehicles, and reduced habitat fragmentation. Within the designated areas, there are 487 acres of special status species habitat which could be subject to noise, dust, possible habitat damage, and disturbance from vehicles and human presence.

Impacts to special status species from the management of congressionally designated trails would be similar to those described under Alternative A. Under Alternative D, additional management of eligible and congressionally designated trails could reduce or prevent disturbance or loss of habitat for special status species to a greater degree when compared to Alternative A.

Impacts to special status species from the management of WSAs would be similar to those described under Alternative B. Under Alternative D, if WSAs were not designated as wilderness, most of the areas would be managed as ACECs. Impacts to special status species from the management of ACECs are described in detail under Alternative A.

Impacts to special status species from the management of the Red Desert Management Area (162,980 acres), Pine Mountain Management Area (62,760 acres), and the Sugarloaf Basin Management Area (87,240 acres) would be very similar to Alternative A although fewer management areas would be retained under Alternative D. Where protective management is applied, it would support forage, habitat, migration corridors, and other important areas for raptors and other special status species.

Impacts to special status species from the management of South Pass Historic Landscape, Little Mountain, Special Status Plants, and Steamboat Mountain ACECs would be the same as those described under Alternative A.

Impacts to special status species from not retaining the ACEC designations for Cedar Canyon, Greater Sand Dunes, Natural Corrals, Oregon Buttes, Pinnacles, and Pine Springs ACECs would be the same as those described under Alternative C.

Impacts to special status species from the management of National Historic Landmarks would be the same as those described under Alternative B.

Impacts to special status species from reducing or minimizing risk to humans and the environment from hazardous materials would be the same as Alternative B.

## 4.8.4 Proposed RMP

The Proposed RMP is a combination of management actions, primarily from Alternative B and Alternative D and would have similar impacts as previously described under these alternatives. In general, the Proposed RMP would have increased protections for special status species compared to Alternatives A, C, and D, but fewer than Alternative B. In general, impacts on special status species and their habitats would be similar to those described above for wildlife and fisheries. The BLM is in consultation with the U.S. Fish and Wildlife Service (USFWS) to fulfill requirements under the Endangered Species Act of 1973 (ESA) and is developing a Biological Assessment for evaluating the Proposed RMP (Appendix H). Section 7 consultation with USFWS is ongoing. The Biological

Assessment and Biological Opinion will be posted to the ePlanning site (https://eplanning.blm.gov/eplanning-ui/project/13853/510) prior to issuance of the Record of Decision.

Although impacts on special status species may differ because of the amount of area open to and management direction for mineral development, SRMAs, ACECs, and lands with wilderness characteristics, all the action alternatives, including the Proposed RMP, require special status plant and wildlife surveys in suitable habitat before any surface-disturbing activities occur. If any special status species were found, then the BLM would coordinate with USFWS or Wyoming Fish and Game Department (WGFD), or both, to protect special status species. This would protect special status species at the implementation level across the planning area.

Impacts on special status species from mineral development would be similar to those described under Alternatives A and B. Under the Proposed RMP, closing 1,076,039 acres to fluid mineral leasing would protect special status species from oil and gas development and would close 536,018 more acres than under Alternative A. In addition, most open acres would have NSO, CSU, and TLS that would provide some protection for special status species and avoid disturbances during sensitive periods. Impacts on special status species from the management of fluid minerals from the Proposed RMP would be greater than under Alternative B, which has more acres closed, and with more NSO stipulations. The Proposed RMP is similar to Alternative D, but with some adjustments for special management changes (Appendix V; Table 2-4). Areas that would be open include "eligible but designated" NHT trails, the big game migration corridor, Monument Valley, and portions of the Little Mountain ACEC. If development were to occur in these open areas, impacts on special status species and their habitats may be greater than those of Alternative B, but less than those of the other alternatives. Under the Proposed RMP, there would be more acres closed to solid leasable minerals (coal, oil shale, and trona), which would reduce solid mineral associated impacts on special status species compared to Alternatives A, C, and D (Appendix V; Table 2-7).

Impacts from recreation on special status species would be similar to those described under Alternative A, but the Proposed RMP would have fewer potential impacts from recreation on special status species because there would be 159,505 fewer acres designated as SRMAs compared with Alternative A. However, recreation impacts would be greater than those under Alternative B, which does not propose any SRMAs and instead focuses on primitive recreation experiences.

Unlike Alternative B, the Proposed RMP would manage lands with wilderness characteristics for multiple uses and as determined by other management area direction, instead of for wilderness characteristics (see Appendix V), and impacts would be similar to those of Alternatives A and D. Under the Proposed RMP, management for lands with wilderness characteristics specifically to preserve those characteristics would not occur, and the beneficial impacts on special status species from their management described under Alternative B would not be realized. For example, lands with wilderness characteristics would not be closed to mineral or other development, which would increase the potential occurrence of surface-disturbing activities in special status species habitat. Other overlapping special designations would still help limit development effects on special status species in these areas.

The Proposed RMP would designate 12 ACECs and increase the acreage in ACECs by about 648,665 acres compared with Alternative A, but would decrease areas designated as ACECs by approximately 670,525 acres compared to Alternative B. ACEC management direction would indirectly protect special status species that may occur within ACECs by limiting the types of activities that could occur and focusing management on protecting the critical values for which the ACEC was designated. However, the Proposed RMP allows for more multiple uses in ACECs than Alternatives A and B. For example, under the Proposed RMP, some ACECs may be open to certain types of mineral development (see Appendix V). As such, the ACECs designated under the Proposed RMP may not provide as much protection for special status species compared with the alternatives (in particular Alternative B) that more fully restrict development in ACECs.

Impacts on special status species from the management of the Special Status Plant Species ACEC would be similar to those described under Alternative A. Under the Proposed RMP, the ACEC would be expanded to 4,469 acres to protect newly identified special status plant populations. The inclusion of additional land and protective measures to prevent or reduce surface disturbance could provide greater protection for special status plants than the other alternatives.

Livestock grazing has the potential to affect sensitive Colorado River and Platte River species. Impacts from grazing on special status species would be the same as those described under Alternative A. The Proposed RMP allocates 3,596,265 acres as available for grazing, which is 4,861 acres more than allocated under Alternative A and 12,467 acres more than allocated under Alternative B.

# 4.9 WILD HORSES

## 4.9.1 Alternative B

Impacts to wild horses from air quality management would be similar to those described under Alternative A. Under Alternative B, additional management to reduce dust and emissions could support forage quality by reducing accumulation of dust particles on vegetation to a greater degree compared to Alternative A.

Under Alternative B, soil, water quality, and watershed management activities would benefit wild horses through enhancement of vegetation resources aimed at reducing erosion and improving water quality. Prohibiting the use of fire suppression chemicals within 1,320 feet (¼ mile) of surface water would protect forage for horses and water quality from these chemicals to a greater degree compared to Alternative A. Prohibiting salt blocks and other nutritional supplements within 2,640 feet (½ mile) of surface water sources, riparian areas, and wetlands could distribute forage use and reduce impacts on water sources from overuse, or degraded water quality.

Managing lands with wilderness characteristics could protect forage from surface disturbing activities and prevent the removal or damage of forage, prevent soil loss, erosion, or removal of habitat for plant species, and prevent the introduction or spread of invasive, non-native plant species. Closing all lands with wilderness characteristics to mineral leasing and development, and management as exclusion areas for ROWs could protect these areas from surface disturbing activities and could benefit wild horses. Increased restrictions on surface disturbing activities would protect forage and water quality and would reduce human activity, thereby reducing potential stress to animals.

Impacts to wild horses from the management of mineral resources would be similar to those described under Alternative A. Under Alternative B, increased restrictions on surface disturbing activities from mineral development would support forage and water resources to a greater degree. Applying lease stipulations and closing lands to mineral leasing and development within this alternative would decrease the amount of surface disturbing activities, thereby maintaining vegetation for wild horses. Management actions that restrict surface disturbing activities include TLSs (for all herd management areas [HMA]) (713,837 acres), CSU stipulations (99,674 acres), and NSO stipulations (813,354 acres). Closing HMA lands to oil and gas leasing (2,186,218 acres, a 305% increase over Alternative A), mineral material sales (2,581,741 acres), and proposed for withdrawal from locatable mineral entry (1,993,908 acres) would protect larger areas of forage and habitat compared to Alternative A.

Impacts from fire and fuels management would be similar to Alternative A, except wildfire for resource benefit would be emphasized to improve forage condition in HMAs when they occur. As a result, more vegetation could be burned during the life of the plan, thereby increasing the likelihood of maintaining vegetation in an early seral stage and improving the condition of the forage. Where wildfire for resource benefit occurs, short-term impacts would be loss of vegetation and localized increased competition for forage; and long-term impacts would result in possible concentration on burned areas and associated delays in vegetation community responses.

Impacts to wild horses from vegetation management would be similar to those described under Alternative A. Management, such as riparian management exclosures under Alternative B would provide additional benefits for wild horses and their habitat compared to Alternative A. Short-term, horses could be excluded from water and forage; long term, exclosures could benefit wild horses by improving water quality and riparian forage conditions. However, the provision under this alternative that allows exclosures to be removed could partially offset these impacts.

Impacts to wild horses from wildlife and fisheries management would be similar to Alternative A; however, additional measures for wildlife protection would be implemented under this alternative. Impacts to wild horses from the management to improve habitat for wildlife, prevent habitat fragmentation, and provide protection from human activity would benefit wild horses and their habitat by maintaining and improving forage production to a greater degree when compared to Alternative A. Surface disturbing and disruptive activities in sensitive species habitat, as well as migration and transitional ranges, would be managed and could decrease disturbance during sensitive periods, such as foaling.

Impacts to wild horses from VRM would be similar to Alternative A, except 2,148,902 acres would be designated as VRM Class II. The VRM Class II designation, in some cases, could preclude surface disturbing activities or preclude facility placement, which could protect forage available to wild horses.

Impacts to wild horses from the management of renewable energy and ROWs would be similar to those described under Alternative A. Under Alternative B, 2,480,876 acres of ROW exclusion and 133,903 acres of avoidance areas could prevent or reduce surface disturbance, removal of vegetation, and prevent the introduction or spread of invasive, non-native plant species to a greater degree when compared to Alternative A. The management could support more forage and undisturbed habitat for wild horses than Alternative A.

Impacts to wild horses from livestock grazing management would be very similar to those described under Alternative A. Under Alternative B, the construction and maintenance of livestock range improvements and water developments would maintain healthy forage conditions, prevent overuse of vegetation resources, and ultimately benefit wild horses.

Impacts to wild horses from recreation management would be similar to Alternative A; however, additional management to protect natural resources could support vegetation health and water quality for horses to a greater degree than Alternative A.

Impacts to wild horses from OHV use would be the same as those described under Alternative A. Routes would only be managed as limited to designated road and trails within 3,367,576 acres which could focus vehicle use to only well used routes, preventing further vegetation loss or disruption of animals from vehicle use on ‘existing’ routes.

Management for special designations would protect wild horses to a greater degree than Alternative A. Management aimed at conserving sensitive vegetation communities, and limitations on mineral development and other surface disturbing activities, would benefit wild horses by enhancing overall vegetation conditions and subsequently increasing forage production.

### 4.9.2 Alternative C

Impacts to wild horses would not occur from forests and woodlands, cultural, paleontological, and lands and realty management. Impacts to wild horses from VRM, ROWs, and back country byways would be the same as those described under Alternative A.

Impacts to wild horses from soils, water quality, and watershed management actions would be similar to those described under Alternative A. Less protective management, such as considering the avoidance area around riparian zones and floodplains on a case-by-case basis would provide less protection to vegetation resources from surface disturbing activities and possibly result in degraded forage conditions in these areas when compared to Alternative A.

Under this alternative, lands with wilderness characteristics would not be managed to protect the characteristics, which could allow for surface disturbing or disruptive activities to occur within these areas. This could result in damage or loss of forage, soil compaction, and degradation of water quality. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species that could alter native vegetation, which could degrade forage for wild horses.

Impacts to wild horses from the management of mineral resources would be the same as those described under Alternative A. Under Alternative C, management actions that restrict surface disturbing activities include TLSs (for all HMAs) (1,355,485 acres), CSU stipulations (215,890 acres), and management of areas as NSO (15,542 acres). Closing areas to oil and gas leasing (225,782 acres, a 58% decrease compared to Alternative A), closing areas to mineral material sales (226,421 acres), and proposing areas for withdrawal from locatable mineral entry (234,961 acres) would protect habitat for wild horses to a lesser degree when compared to Alternative A.

Impacts to wild horses from fire and fuels management are similar to Alternative A. In addition, additional fire suppression efforts would possibly maintain existing forage in HMAs that would otherwise burn in wildfires.

Impacts to wild horses from vegetation, wildlife and fisheries, and special status species would be the same as those described under Alternative A. However, benefits from wildlife habitat management would be less extensive than under the other alternatives because of less restrictive actions to protect wildlife habitat. This management could reduce availability of vegetation resources for wild horses when compared to Alternative A.

Impacts to wild horses from livestock grazing management would be the same as those described under Alternative A, except more water development actions would occur, which would increase the availability of water for wild horses.

Impacts from recreation management would be similar to Alternative A; however, increased recreation opportunities could reduce the wild and free-roaming nature of the horses.

The effects on wild horses resulting from the development of ROWs would be similar to those identified for Alternative A. The difference is that 225,784 acres would be excluded from ROW development (200,925-acre decrease), increasing areas of disturbance and vegetation removal that would be vulnerable to the introduction and spread of invasive, non-native plant species, which could alter native vegetation for wild horses.

Increasing open OHV use within approximately 500 additional acres would result in impacts similar to those described under Alternative A, but additional habitat for wild horses could be affected.

Under this alternative, no areas would be designated as ACECs and special management areas would not be retained. Removing the restrictions could increase surface disturbance which could increase the short-term displacement of wild horses and decrease available forage, leading to a greater loss in the wild and free-roaming nature of wild horses than any other alternative.

### 4.9.3 Alternative D

Impacts to wild horses would not occur from forests and woodlands, cultural, paleontological, and lands and realty management.

Impacts on wild horses resulting from implementing management actions for air quality, water resources, fish and wildlife, special status species, cultural resources, paleontological resources, recreation, and livestock grazing would the same as those presented under Alternative A.

Impacts on wild horses from soils, water quality, and watershed management would be similar to those identified under Alternative A. However, less restrictive management in floodplains and riparian areas would allow increased vegetation removal within these areas, possibly leading to forage reduction for wild horses to a greater degree when compared to Alternative A.

Under Alternative D, lands with wilderness characteristics would be managed for multiple use which could reduce development activities within these areas, but to a far lesser degree than under Alternative B. Surface disturbing activities could result in removal and damage to vegetation resources, which would reduce available forage for wild horses.

Impacts on wild horses from managing fluid mineral leasing and development would be similar to those presented under Alternative A. Under Alternative D, management actions that restrict surface-disturbing activities include TLSs (for all HMAs) (1,911,167 acres), CSU stipulations (1,238,899 acres), and NSO stipulations (2,172 acres). Closing HMA lands to oil and gas leasing (768,989 acres, a 42% increase over Alternative A) would protect larger areas of forage and habitat compared to Alternative A. Reducing areas closed to mineral material sales (362,009 acres) and proposed for withdrawal from locatable mineral entry (482,272 acres) could allow for more vegetation resources to be damaged or removed by fluid mineral leasing activities when compared to Alternative A.

Impacts on wild horses from locatable and saleable mineral development activities would be similar to those presented under Alternative A, except the area in which such mineral development is prohibited across HMAs would be reduced to 61,153 acres for locatable minerals (87% decrease compared with Alternative A) (Table 2-3 in Appendix V, Map 2-4) and to 82,471 acres for saleable minerals (44% decrease compared with Alternative A) (Table 2-8 in Appendix V, Map 2-19). This would increase the area in which vegetation resources could be impacted by locatable and saleable mineral development activities, which would increase the potential for vegetation removal and thereby decrease forage levels for wild horses.

Impacts on wild horses from managing fire and fuels would be the same as those presented under Alternative B.

Impacts on wild horses from managing vegetation resources would be similar to those presented under Alternative A. Under Alternative D, prescribed fire would not be the preferred method for vegetation treatments as it is under Alternative A. However, because all vegetation treatment types are available under Alternative D, the impacts on forage resources would be essentially the same.

Impacts on wild horses resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be greatly increased to 1,178,718 acres (102% increase compared with Alternative A) (Table 2-9 in Appendix V, Map 2-24), which could lead to decreased degradation and removal of forage.

Impacts on wild horses resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be reduced. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres (33% decrease compared with Alternative A) (Table 2-10 in Appendix V, Map 2-29), which would decrease the area in which ROW development activities are prohibited compared to Alternative A.

Impacts on wild horses from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as “limited to existing roads and trails” (3,367,576 acres) would be changed to

"limited to designated roads and trails" and all routes within this area would be designated as open, closed, or limited.

Impacts on wild horses from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a smaller area (246,634 acres of ACEC designations) and thereby offer fewer protections to important values in these areas. This would increase surface disturbing activities and indirectly help to protect and maintain healthy forage resources.

### 4.9.4 Proposed RMP

Impacts on wild horses resulting from implementing management actions for air quality, water resources, fish and wildlife, special status species, cultural resources, paleontological resources, and livestock grazing would the same as those presented under Alternative A.

Impacts on wild horses from soils, water quality, and watershed management would be similar to those identified under Alternatives A and D. Under the Proposed RMP, requirements for an operator to submit a mitigation plan prior to surface-disturbing activities will provide a greater degree of protection to and mitigate loss of limited reclamation potential soils compared to Alternative A. Like Alternative D, the Proposed RMP would implement some restrictions on the placement of permanent facilities and linear crossings within floodplains, wetlands, riparian areas, and perennial streams but would result in fewer protections than Alternative B, which would prohibit any new surface-disturbing activities in these areas. Under the proposed RMP, the levels of protection for soil and watershed resources would have greater protective effect on wild horses than Alternative A but less than Alternative B.

Under the Proposed RMP, impacts from management of lands with wilderness characteristics would be similar to those described under Alternative D. Similar to Alternative D, under the Proposed RMP, lands with wilderness characteristics would be managed for a variety of uses with only consideration of those characteristics. Such management could allow some development activities within these areas, but to a lesser extent, resulting in fewer impacts on wild horses than those under Alternatives A and C.

Impacts on wild horses from managing fluid mineral leasing and development would be less than those presented under Alternative A and greater than those presented under Alternative B. Under the Proposed RMP, approximately 1,076,039 acres would be closed to fluid mineral leasing, 215,437 acres would be managed with NSO stipulations, 1,116,266 acres would be managed as CSU areas, and 526,067 acres would be managed with TLS. Increased closures and protective measures around fluid mineral leasing would reduce habitat and forage disturbance and disruption of individual wild horses compared to Alternative A.

Impacts on wild horses from locatable and saleable mineral development activities would be less than those presented under Alternative A, due to an overall increase in areas closed or withdrawn from locatable and salable mineral extraction. Under the Proposed RMP, 900,204 acres of locatable minerals would be proposed for withdrawal (62% increase compared with Alternative A) (Table 2-3 in Appendix V, Map 2-5) and 884,906 acres would be closed to development of saleable minerals (6% increase compared with Alternative A) (Table 2-8 in Appendix V, Map 2-20). This would decrease the area in which vegetation resources could be impacted by locatable and saleable mineral development activities, which would minimize the potential for vegetation removal and thereby increase forage levels for wild horses.

Impacts on wild horses from managing fire and fuels would be similar to those presented under Alternative A. However, similar to Alternatives B and D, the Proposed RMP incorporates greater restrictions on the use of fire suppression agents; therefore, it could be more difficult to suppress and control wildfires. These restrictions could both reduce and increase impacts on wild horses, reducing environmental toxins but increasing impacts if fires burn more forage and habitat areas.

Impacts on wild horses from managing vegetation resources would be similar to those presented under Alternative A, and include a combination of management actions from Alternatives B and D. The Proposed RMP would have increased protections for vegetative communities compared to Alternatives A and D, but fewer than Alternative B.

Impacts on wild horses resulting from implementing VRM actions would be similar to those presented under Alternative A, except 718,332 more acres would be designated as VRM Class II under the Proposed RMP. Increased management of lands as VRM Class II would result in impacts similar to those described under Alternatives B and D. As such, impacts on wild horse habitat and forage resources would decrease compared to Alternative A, but would increase compared to Alternative B, which manages the majority of the planning area as VRM Class II.

Impacts on wild horses resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except there would be an increase in ROW exclusion and avoidance areas, which could reduce effects on wild horses. The Proposed RMP designates 921,059 acres as ROW exclusion areas (116% increase compared with Alternative A) and 1,047,929 acres as ROW avoidance areas (42% increase compared with Alternative A) (Table 2-10 in Appendix V, Map 2-30). This would protect more habitat and reduce impacts on wild horses compared to Alternative A by increasing the area in which ROW development activities are prohibited. However, the Proposed RMP would result in more impacts compared to management under Alternative B.

Impacts on wild horses from managing OHV use would be the same as those presented under Alternative D.

Impacts on wild horses from managing special recreation areas would be the same as those presented under Alternative D. The Proposed RMP designates 138,605 acres as special recreation areas, which is similar to Alternative D (135,549 acres) but approximately 54% less than Alternative A.

Impacts on wild horses from managing special designation areas would be similar to those presented under Alternative A, except more land would be managed as ACECs as opposed to Management Areas. Under the Proposed RMP, 935,135 acres as ACEC, 648,665 more acres (226%) than Alternative A. This would increase surface disturbing activities and indirectly help to protect and maintain healthy forage resources.

# 4.10 WILDLAND FIRE ECOLOGY AND MANAGEMENT

## 4.10.1 Alternative B

Impacts to wildland fire ecology and management from the management of air resources, Greater Sage-Grouse, and livestock grazing would be the same as those discussed under Alternative A.

Impacts to wildland fire ecology and management from the management of soil and geologic resources would be similar to those discussed under Alternative A, except that surface disturbing activities in areas that are highly erodible or difficult to reclaim would be managed as NSO for fluid minerals, closed to mineral material sales/disposals, and closed to all solid mineral leasing. This could help to promote healthy, diverse vegetation communities that contain mosaic patterns and natural fuel breaks and generally fuel low-intensity fires.

Impacts to wildland fire ecology and management from the management of water resources would be similar to those discussed under Alternative A, except that greater surface disturbing protections would be in place. These restrictions could help to promote healthy, diverse vegetation communities that contain mosaic patterns and natural fuel breaks and generally fuel low-intensity fires; which could help to reduce fire frequency and intensity. Use of fire suppression chemicals (including foaming agents and surfactants) would be prohibited within 1,320 feet (¼ mile) of surface water. Fire control/suppression could be impacted by those restrictions.

Managing all lands identified as having wilderness characteristics specifically to preserve those characteristics would provide additional restrictions on wildland fire management in the planning area. Management actions to limit surface disturbing activities, surface occupancy, and degradation of viewshed or setting impacts, and help preserve wilderness characteristics would restrict surface disturbing activities and transportation routes. These management actions would help to promote healthy, diverse vegetation communities that contain mosaic patterns and natural fuel breaks and generally fuel low-intensity fires; which helps to reduce fire frequency and intensity.

Under this alternative, 2,186,218 acres in the planning area are closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (1,646,197 more acres than Alternative A); 1,993,908 acres are proposed for withdrawal from locatable mineral entry (1,437,350 more acres than Alternative A); and 2,581,741 acres are closed to saleable mineral development and/or disposals (1,748,022 more acres than Alternative A) (Tables 2-3, 2-4, and 2-8 in Appendix V, and Maps 2-2, 2-7, and 2-17). Compared to Alternative A, more acres would be unavailable to the exploration, leasing, and/or development of fluid minerals, unavailable for saleable mineral disposal, and withdrawn from locatable mineral entry. This management would reduce surface disturbing activities and occupancy which help to promote healthy, diverse vegetation communities that contain mosaic patterns and natural fuel breaks.

Wildland fire and ecology management actions would be similar to Alternative A, except more emphasis would be placed on allowing wildfire to function as a natural management tool for improving diversity of plant species and age classes. Wildfire response would vary from full suppression in areas where fire is undesirable, to monitoring fire behavior in areas where fire can be used as a management tool in achieving resource objectives. The use of heavy equipment would be restricted to uses that are necessary to protect life or property. The prohibitions on the use of chemical fire suppression agents within ¼ mile of rock art sites, lands with special designations, and where it could adversely affect other resources is more restrictive than Alternative A. These restrictions could limit certain fire control or suppression techniques.

Similar to Alternative A, emphasis would be on forest and woodland management that improves vegetative health and benefits other resources, except that the use of natural processes like decay, succession, and wildfire would be allowed and utilized to the greatest extent possible. This priority directly impacts the ability to utilize prescribed burns and fire control techniques to accomplish resource management objectives and/or improve habitats. Managing wildfire to most benefit the forest and woodland ecology of the planning area requires actions to limit high-intensity fires that can directly damage or destroy commercially valuable timber stands, other non-commercial forest products, wildlife habitats, recreation areas, and manmade structures and development. Clear cut harvests create fire breaks and fire equipment access avenues that could be effective in preventing the spread of wildfires; prohibiting them under this alternative would reduce that benefit to fire control/suppression efforts. Limiting logging operations on slopes steeper than 25% (compared to 45%, under Alternative A) would reduce lands where commercial harvests could be conducted, thereby increasing fuel loading that support high-intensity fires.

Impacts to wildland fire ecology and management from the management of invasive species and pests is similar to Alternative A. Additional BMPs would be applied to protect vegetation communities from threats from noxious weed infestations. This alternative prohibit aerial application of chemicals within 2,640 feet (½ mile) of wetlands, riparian areas, aquatic habitats, and special status plants; and prohibiting vehicle and hand application of chemicals within 1,320 feet (¼ mile) would impact applications of fire retardants and suppression chemicals. The management could make fire suppression efforts more difficult or expensive due to the inability to use retardant or suppression chemicals.

Impacts to wildland fire ecology and management from the management of fish and wildlife resources and special status species are similar to Alternative A. Surface use restrictions would be utilized to accomplish no-net-loss of sensitive terrestrial and aquatic wildlife habitats. NSO and TLS for fluid minerals, closures to solid mineral leasing and mineral material sales/disposals, ROW avoidance or exclusions, and vehicle access and travel limitations

would also be applied at various sites to reduce surface disturbances and occupancy. These restrictions would help to promote healthy vegetation communities and reduce wildfire occurrence and intensity. Prohibiting the use of fire suppression chemicals within 1,320 feet (¼ mile) of special status plant species populations would limit fire control/suppression actions.

Impacts to wildland fire ecology and management from the management of cultural and paleontological resources would be similar to Alternative A, except this alternative applies more protective measures such as NSOs and CSUs for fluid minerals; closures to mineral material sales/disposal, mineral location, and all solid mineral leasing; and ROW exclusions. These restrictions would help to reduce wildfire occurrence and intensity and the resultant need for fire suppression activities.

VRM impacts would be similar to Alternative A, except that approximately 225,785 acres would be classified as VRM Class I (68 more acres than Alternative A), 2,148,902 acres as VRM Class II (1,566,230 more acres than Alternative A), 666,522 acres as VRM Class III (51,030 more acres than Alternative A) and 563,754 acres as VRM Class IV (1,616,669 fewer acres than Alternative A). This would likely lead to less surface disturbance and thereby a reduction in impacts to fire management.

Land resource management actions related to the real estate transactions of acquisition, disposal, and/or pursuing withdrawals would have similar impacts to wildland fire ecology and management as Alternative A. Impacts on wildland fire ecology from the management of ROWs and transportation corridors would be similar to Alternative A, except no new corridors would be designated. In total, 2,480,876 acres would be designated as exclusion for ROWs (2,054,167 more than Alternative A) and 133,903 acres would be designated as ROW avoidance areas (602,235 fewer than Alternative A). This would likely lead to less surface disturbance and thereby a reduction in impacts to fire management. Impacts to wildland fire ecology from the management of renewable energy projects would be similar to Alternative A, except an increase in ROW exclusion areas would result in fewer renewable energy projects and thereby fewer related impacts on fire management.

Impacts to wildland fire ecology from the management of recreation would be similar to Alternative A. The Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, Killpecker Sand Dunes, Oregon and Mormon Pioneer National Historic Trails, and the Wind River Front SRMAs would not be retained. Not retaining the SRMAs, releasing lands from an emphasis on recreation resource development, and applying a greater zone of restriction against surface disturbing activities and visual disturbances on land surrounding developed recreation sites, certain designated trails, and the Wind River Front SRMA could potentially reduce human and vehicle access to those areas; thereby decreasing potential ignition sources (and wildfire occurrence) and the need for fire control/suppression actions. Not retaining SRMAs could allow more opportunities to utilize fire fuel treatments to manipulate vegetation in those areas. Greater buffer zones against surface and visual disturbances could limit fuel treatments and suppression techniques.

The actions to manage OHV travel in the planning area would be similar to Alternative A, except OHV use is limited to the roads and trails designated for OHV use (these designations are applied to 3,367,576 acres, which is 2,398,617 more acres than Alternative A). Limiting new OHV areas could decrease the extent of surface disturbances that could result in damage or removal of vegetation and thereby reduce related impacts to wildland fire.

Impacts to wildland fire ecology from the management to protect congressionally designated and/or eligible trails, and NHTs are similar to Alternative A, except there are greater protective measures proposed such as larger buffer zones (“setbacks”) and specific closures and restrictions. The greater restrictions on surface disturbing activities, vehicle travel, and stricter VRM classifications under this Alternative could potentially place limitations on wildland fire fuel treatments and fire control/suppression actions. Any land protection measures or reduction of surface disturbances would prevent or reduce vegetation loss or damage, and could reduce the introduction and

spread of invasive, non-native plant species. Reducing human and vehicle access could also reduce ignition sources in the area, which would decrease the probability of wildfire occurrence.

Impacts to wildland fire ecology from the management of WSAs and WSRs would be similar to Alternative A, but there would be a greater emphasis on protecting wilderness setting and viewshed values. The greater restrictions on surface disturbing activities, stricter VRM classifications, and restricted vehicle travel under this alternative could place limitations on the use of prescribed fire for fuel treatments and fire control or suppression actions. This would also reduce the potential for degraded landscapes that increase fire occurrence and intensity.

Impacts to wildland fire ecology from the management of ACECs would be similar to those described under Alternative A, except 1,605,660 acres (1,319,210 more than Alternative A) would be designated as ACECs. This alternative emphasizes managing important habitats for no-net-loss of habitat, retaining habitat health and function by applying surface use restrictions, and addressing human access and activities that could degrade or destroy resources. Additional stipulations to individual ACECs (e.g., eliminating ROW windows, excluding ROWs, and limiting road development) would provide greater restrictions on surface disturbances. The greater restrictions on surface disturbing activities, additional ACEC stipulations, and stricter VRM classifications under this alternative could potentially place limitations on fuel treatments using prescribed fire and fire control/suppression actions. This would also reduce the potential for degraded landscapes that increase fire occurrence and intensity.

## 4.10.2 Alternative C

Impacts to wildland fire ecology and management from the management of air resources, soil resources, riparian and wetland resources would be the same as those presented under Alternative A.

Impacts to wildland fire ecology from the management of water resources would be similar to Alternative A, except surface disturbing activities occurring in or near the 100-year flood plains, wetlands, riparian areas, and gorges would each be considered on a case-by-case basis (rather than be protected by a full closure stipulation). The less restrictive stipulations under this alternative could increase the allowance of surface disturbances, occupancy, human presence, and vehicle access. Those activities can contribute to soil and vegetation damage that can lead to more fire-prone habitat and increase wildfire ignition sources. The use of fire suppression chemicals, including foaming agents and surfactants, would be prohibited within 100 feet of surface water (as compared to 1,320 feet under Alternative A). This smaller buffer distance would allow greater use of this fire control/suppression technique and the improved ability to suppress wildfires.

The management measures proposed under Alternative B to protect lands with wilderness characteristics would not be implemented under this alternative. The impacts of not managing to protect wilderness characteristics could allow for surface disturbing activities to occur within these areas which could result in increased ignition sources and damage to vegetation, thereby increasing the potential for wildfire occurrence and intensity. Fewer prohibitions could also improve the ability and increase the flexibility to utilize fuel treatments and fire control/suppression techniques.

Under this alternative, 225,782 acres in the planning area are closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (314,239 fewer acres than under Alternative A, Table 2-4 in Appendix V and Map 2-8). Approximately 234,961 acres are proposed for withdrawal from locatable mineral entry (321,597 fewer than Alternative A) and 226,421 acres are unavailable for saleable mineral development and/or disposals (607,298 fewer acres than Alternative A) (Tables 2-3 and 2-8 in Appendix V, and Maps 2-3 and 2-17). Impacts to wildland fire ecology and management would be similar to those described under Alternative A, except fewer acres would be closed to the exploration, leasing, and/or development of fluid minerals and fewer acres would be available for development of locatable and salable minerals. More land available for mineral development allows more surface disturbing activities and human access, which would increase the potential for wildfire occurrence

and intensity. In addition, the ability and flexibility to utilize fuel treatments and fire control/suppression techniques could be greater where there are fewer restrictions.

The management of wildland fire would be similar to Alternative A, except that full wildfire suppression would be used on all unplanned ignitions to limit the total number of acres burned. Planned ignitions would be managed the same as Alternative B to maintain or improve biological diversity and the overall health of the public lands. The use of heavy equipment could be utilized outside of a 100-foot buffer zone around special management areas; and chemical fire suppression agents could be used within 300 feet of rock art site and special designations. These are both less restrictive than Alternative A. These allowances could allow greater use of fire control or suppression techniques, which would reduce the threat of large wildfires. However, full suppression of wildfire in the long-term disrupts the natural fire regime and can eventually result in in larger, more intense and destructive wildfires.

Compared to Alternative A, forest and woodland management would emphasize actions that maintain and enhance forest and woodland health across the landscape to provide forest and woodland products to the public. This could open areas to harvests, allow greater flexibility in harvest methods and timber treatments, and thereby potentially increase harvest volumes. Clear-cuts of any size would be allowed (compared to a 25-acre size limit for individual clear-cut units in Alternative A). Any slope greater than 45% could be logged with cable systems or by helicopter. Pre-commercial thinning would also be allowed to reduce overstocked areas and decrease fire loads. All of these types of harvests would reduce fuel loads, which could decrease the intensity and size of wildfires, allow fires to be more easily controlled, and thereby reduce fire-fighting costs and efforts.

Impacts to wildland fire ecology from the management of invasive species and pests would be similar to those described under Alternative A. Allowing chemical treatments would result in an additional method that supports fire fuel reduction. Prohibiting aerial application of chemicals within 100 feet (compared to 2,640 feet under Alternative B) of wetlands, riparian areas, aquatic habitats, and special status plants; and prohibiting vehicle and hand application of chemicals within 25 feet (by vehicle) and 10 feet (by hand) as compared to 1,320 feet under Alternative B, would allow the application of fire retardants and suppression chemicals. This smaller buffer distance would allow greater use of this fire control/suppression technique and the improved ability to suppress wildfires.

Impacts to wildland fire ecology and management from the management of fish and wildlife resources and special status species is similar to Alternative A, except that smaller surface disturbing and/or surface use distance buffer zones would be applied around developments and operations. Allowing project development and greater surface disturbances could result in damage or removal of plant communities. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, creating vegetation communities that fuel high-intensity fires. Allowing these activities could also increase ignition sources in the area, which would increase the probability of wildfire occurrence. Avoiding surface disturbance near special status plants could protect vegetation in these areas and help to promote healthy, diverse vegetation communities, which would reduce the potential for wildfire occurrence and intensity.

Impacts to wildland fire ecology and management from the management of cultural and paleontological resources is similar to Alternative A, except that smaller surface disturbing/setting buffer distances would be applied around known cultural and paleontological sites. Smaller sized buffer distances under this alternative could open areas in the planning area to more surface disturbing activities and human access. Surface disturbing activities could result in damage or removal of vegetation and an increased potential for wildfire occurrence and intensity. The ability and flexibility to utilize fuel treatments and fire control/suppression techniques could be greater where there are fewer restrictions. The use of fire retardant chemicals would be allowed within 300 feet of the rock art sites as compared to ¼ mile of them under Alternative B; allowing greater use of fire control or suppression techniques.

Impacts to wildland fire ecology and management from VRM would be similar to Alternative A, except that approximately 226,629 acres would be classified as VRM Class I (912 more than Alternative A), 607,899 acres

VRM Class II (25,229 more than Alternative A), 395,683 acres VRM Class III (219,809 fewer than Alternative A), and 2,374,706 acres as VRM Class IV (194,283 more than Alternative A). More acreage managed under VRM Class I and II could potentially limit the ability and flexibility to utilize fuel treatments and fire control/suppression techniques. More acres under VRM Class IV, and a smaller VRM buffer distances along the Continental Divide National Scenic Trail would place fewer overall prohibitions on surface disturbing activities. The management could open areas in the planning area to more surface disturbing activities and human access, thereby increasing the potential for wildfire occurrence and intensity.

Impacts to wildland fire ecology and management from management of lands and realty would be similar to those described under Alternative A, except acres of ROW exclusion and avoidance areas would be fewer (225,784 acres excluded, and 31,018 acres avoided; 200,925 and 705,120 fewer acres than Alternative A, respectively). Fewer exclusions and avoidance areas could open lands to more surface disturbing activities and human access. Surface disturbing activities could result in damage or removal of vegetation. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, creating vegetation communities that fuel high-intensity fires. Human presence and construction, operations, and vehicular activities would increase potential ignition sources (and wildfire occurrence) in the planning area; thereby increasing the need for fire suppression actions.

Impacts to wildland fire ecology and management from ROWs and transportation corridors would be similar to those described under Alternative A, except preferred energy corridors would be retained; new corridors could be designated; and there would be no preferred location of ROWs within ROW concentration areas and corridors. Retaining and/or designating new corridors, reducing restrictions on the placement of ROWs, and fewer ROW exclusion and avoidance areas, could open areas in the planning area to more surface disturbing activities and human access. Surface disturbing activities could result in damage or removal of vegetation. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, creating vegetation communities that fuel high-intensity fires. Human presence, construction, and vehicular activities would increase potential ignition sources (and wildfire occurrence) in the planning area; thereby increasing the need for fire suppression actions. ROW corridors could provide fire breaks that could aid in fire control/suppression efforts.

Impacts to wildland fire ecology and management from the management to designate and manage travel would be similar to Alternative A, except five back country byways would not be retained (Tri-Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Firehole-Little Mountain Loop), and additional travel routes that meet the criteria for designation as back country byways would not be considered. The actions of not retaining existing back country byways or designating new ones under this alternative would reduce public visitation to these areas, which would decrease potential ignition sources; thereby decreasing the probability of wildfire occurrences.

Impacts to wildland fire ecology and management from livestock grazing management would have similar impacts as those described under Alternative A except that more planning area acreage would be open to livestock grazing. Properly managed grazing can serve as a vegetation treatment that supports soil and vegetation health, and the reduction of hazardous fuel loads. Livestock grazing that is not managed correctly can result in excessive vegetation loss and surface disturbances, and cause the introduction or spread of invasive, non-native plant species. Those conditions could result in the eventual development of vegetation communities that could load fuels and increase potentials for wildfire occurrences.

Impacts to wildland fire ecology and management from recreation management would be similar to Alternative A, except that undeveloped recreation would be managed with a priority consideration for recreation use. Allowing and encouraging recreational use attracts increasing numbers of visitors, which increases the probability of unintentional ignitions and the need for wildfire suppression activities. Surface disturbances from recreational activities could result in damage or removal of vegetation that can result in conditions that favor ignitions and fuel

wildfires. Overall, the fewer restrictions under this alternative, could open areas in the planning area to more surface disturbing activities and human access and thereby increase the potential for wildland fire occurrence and intensity.

Impacts on wildland fire ecology and management from OHV travel would be similar to Alternative A, except that this alternative allows cross country OHV use in 13,332 acres (501 more acres than Alternative A). OHV use could increase the extent of surface disturbances that could result in damage or removal of vegetation. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, creating vegetation communities that fuel high-intensity fires.

Impacts to wildland fire ecology and management from management to protect congressionally designated and/or eligible trails, and NHTs are similar to Alternative A, except that fewer restrictions on surface disturbing activities and vehicle travel could place fewer limitations on fuel treatments and fire control/suppression actions. Any land management that allow surface disturbance could result in increased vegetation loss or damage and resultant increases in the potential for wildfire occurrence and intensity. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, creating vegetation communities that fuel wildfires. Increasing human and vehicle access could also increase ignition sources in the area, which would increase the probability of wildfire occurrence.

Impacts to wildland fire ecology and management from the management of WSAs and WSRs would be similar to Alternative A, but there would be a greater emphasis on managing designated areas for multiple use. Under this alternative, the Sweetwater River designation would not be retained, so no WSR management actions would be developed or applied. No management for WSRs could potentially increase access, travel, and surface disturbances to these sites, which could increase potentials for wildfire occurrence.

Under this alternative, no ACECs would be retained (as compared to all being retained under Alternative A). Removing all the ACEC-specific land use and relaxing surface disturbing restrictions under this alternative could result in increased vegetation loss or damage. Areas of disturbance would be vulnerable to the introduction and spread of invasive, non-native plant species which could alter native vegetation, creating vegetation communities that fuel wildfires. Increased human and vehicle access could also increase ignition sources in the area, which would increase the probability of wildfire occurrence.

### 4.10.3 Alternative D

Impacts to wildland fire ecology and management from implementing management actions for air quality, water resources, fish and wildlife, special status species, cultural resources, paleontological resources, and livestock grazing would be the same as those presented under Alternative A. The impacts on wildland fire ecology and management from managing forests and woodlands would be the same as those presented under Alternative B.

Impacts to wildland fire management from implementing soil management actions would be similar to those identified under Alternative A. Areas with limited reclamation potential soils (those with limited reclamation potential as per the NRCS soil rating) would be designated avoidance areas for surface disturbing activities, which would reduce the extent of surface disturbing activities in these areas and thereby reduce the number of ignition sources (e.g., people, vehicles) and consequently the probability of wildfire occurrence. Heavy equipment use is allowable only after the AO has determined that such surface disturbance is necessary. Reductions in surface disturbing activities would also reduce the intensity and extent of vegetation removal and degradation, which would reduce the potential for wildfire occurrence and intensity.

Under Alternative D, lands with wilderness characteristics would be managed for multiple use, which could reduce development activities within these areas, but to a far lesser degree than under Alternative B. These areas would not be closed to mineral development as they would be under Alternative B, which would increase surface

disturbing activities within the nine lands with wilderness characteristics. Such activities could increase the number of ignition sources (e.g., people, vehicles) and consequently the probability of wildfire occurrence.

Impacts on wildland fire ecology and management from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except stipulations that prohibit fluid mineral leasing or prohibit surface occupancy would be applied to a smaller area. Under Alternative D, 768,989 acres would be closed to fluid mineral leasing (228,968 acres more than Alternative A). These stipulations would decrease surface disturbance from fluid mineral development and thereby decrease related impacts on wildfire across a larger area compared with Alternative A.

Impacts on wildland fire ecology and management from locatable mineral development activities would be similar to those presented under Alternative A, except the area in which such mineral development is prohibited would be increased to 482,272 acres (13% decrease compared with Alternative A) (Table 2-3 in Appendix V, Map 2-4). This would greatly decrease the area in which vegetation could be impacted by locatable mineral development activities, which would decrease the number of potential ignition sources and degradation of vegetation communities and thereby make them less susceptible to fire.

Impacts on wildland fire ecology and management from saleable mineral development activities would be similar to those presented under Alternative A, except the area in which such mineral development is prohibited would be decreased to 362,009 acres (57% decrease compared with Alternative A) (Table 2-8 in Appendix V, Map 2-19). This would greatly increase the area in which vegetation could be impacted by saleable mineral development activities, which would increase the number of potential ignition sources and degradation of vegetation communities and thereby make them more susceptible to fire.

Impacts on wildland fire ecology and management from implementing actions designed to manage fire within the planning area would be similar to those presented under Alternative A, except greater restrictions on the use of fire suppression agents could make it more difficult to suppress and control wildfires. This could result in more intense wildfires that burn more acres and cause extreme damage to vegetation resources, which in turn could lead to further degradation of vegetation resources. Under this alternative, the use of aerial and ground fire suppression agents would be prohibited within ¼ mile and 300 feet, respectively, of rock art sites, special status species, surface water sources, and riparian areas. Compared with Alternative A, which prohibits such use only directly on rock art sites, this would create a greater degree of impact on wildfire management.

Impacts on wildland fire ecology and management from managing vegetation resources would be similar to those presented under Alternative A, except the use of prescribed fire to treat vegetation communities would be reduced given that prescribed fire would not the preferred method for such treatments. However, because all vegetation treatment types are available under Alternative D, the impacts on the occurrence and intensity of wildfire would be the same as those presented under Alternative A.

Impacts on wildland fire ecology and management resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be greatly increased to 1,178,718 acres (102% increase compared with Alternative A) (Table 2-9 in Appendix V, Map 2-24), which could lead to decreased vegetation removal and degradation. Increasing the area managed as VRM Class II would increase the area in which development is restricted in order to be consistent with VRM Class II objectives. This, in turn, could reduce the overall level and intensity of development and help to reduce wildfire occurrence and intensity.

Impacts on wildland fire ecology and management resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be reduced. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres (33% decrease compared with Alternative A) (Table 2-10 in Appendix V, Map 2-29), which would greatly decrease the area in which ROW

development activities are prohibited. This would cause impacts on wildland fire from ROW development in these areas and could lead to an overall increase of such development across the planning area, thereby helping to maintain healthy vegetative communities that are less susceptible to fire.

Impacts on wildland fire ecology and management from managing recreation resources would be similar to those presented under Alternative A, except additional surface use restrictions would be placed on many of the SRMAs. Mineral and ROW development activities would be limited or precluded in the Killpecker Sand Dunes, Oregon and Mormon Pioneer National Historic Trail, and Little Mountain, SRMAs, which would reduce the intensity and extent of surface disturbance in these areas and thereby reduce wildfire intensity and the probability of fire occurrence.

Impacts on wildland fire ecology and management from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as "limited to existing roads and trails" would be changed to "limited to designated roads and trails" (3,367,576 acres) and all routes within this area would be designated as open, closed or limited.

Impacts on wildland fire ecology and management from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a larger area and thereby offer greater protections to important historic, cultural, wildlife, and scenic values in these areas. This, in turn, would reduce surface disturbing activities and indirectly help to protect and maintain healthy vegetative communities, which would reduce the potential wildfire occurrence and intensity. The acres designated as ACECs would decrease to 246,634 acres (39,816 acres less than Alternative A).

## 4.10.4 Proposed RMP

Impacts on wildland fire ecology and management from implementing management actions for air quality, water resources, fish and wildlife, special status species, cultural resources, paleontological resources, and livestock grazing would be the same as those presented under Alternative A. The impacts on wildland fire ecology and management from managing forests and woodlands would be the same as those presented under Alternative B.

Impacts on wildland fire ecology and management from implementing actions designed to manage fire within the planning area would be similar to those presented under Alternative A. However, as under Alternatives B and D, greater restrictions on the use of fire suppression agents could make it more difficult to suppress and control wildfires.

Impacts on wildland fire management from implementing soil management actions would be similar to those identified under Alternative A, except restrictions on surface disturbing activities in areas of limited reclamation potential and related beneficial effects to vegetation health and retention would be the same as those proposed under Alternative D.

Impacts from managing lands with wilderness characteristics for multiple use would increase surface disturbing activities within these areas and increase the number of ignition sources and potential for wildfire occurrence similar to Alternative D, and to a greater degree than Alternative B (which includes resource use restrictions to preserve wilderness character in these areas).

Impacts on wildland fire ecology and management from managing fluid mineral leasing and development, locatable mineral development, and saleable mineral disposals would be similar to those discussed under Alternative A, except stipulations and prohibitions under the Proposed RMP could change the location and size of potential development. Under the Proposed RMP, 1,076,039 acres would be closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (536,018 more acres than under Alternative A) (Table 2-4 in Appendix V). Approximately 900,204 acres are proposed for withdrawal from locatable mineral entry

(343,646 more acres than under Alternative A) and 884,906 acres are unavailable for saleable mineral development and/or disposals (51,372 more acres than Alternative A) (Tables 2-3 and 2-8 in Appendix V). Generally, the Proposed RMP would manage fewer areas as available for mineral development than Alternative A, reducing the number of potential ignition sources and degradation of vegetation communities that could make them more susceptible to fire to greater extent than under that alternative. Conversely, the Proposed RMP would restrict mineral development far less than under Alternative B, providing a greater potential for new ignition sources and vegetation degradation compared to that alternative.

Impacts on wildland fire ecology and management from the management of water resources, and special status species would be similar to those discussed under Alternative B, except that greater surface-disturbing protections would be in place. Under the Proposed RMP, it would prohibit the use of fire suppression chemicals, including foaming agents and surfactants, within 300 feet.

Impacts on wildland fire ecology and management from the management of special designations, cultural resources, paleontological resources, soil, wildlife and fisheries, and rock art sites would be similar to those discussed under Alternative B, except that greater surface-disturbing protections would be in place. Under the Proposed RMP, it would prohibit the use of fire suppression chemicals, including foaming agents and surfactants, within 300 feet.

Impacts on wildland fire ecology and management from management of vegetation resources would be similar to those presented under Alternative A, except that the use of prescribed fire to treat vegetation communities and related effects would be the same as under Alternative D. As noted under Alternative D, because all vegetation treatment types are available under the Proposed RMP, the impacts on the occurrence and intensity of wildfire would be the same as those presented under Alternative A.

Impacts on wildland fire ecology and management resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be greatly increased to 1,301,004 acres (123% increase compared with Alternative A) (Table 2-9 in Appendix V), resulting in decreased potential for vegetation removal and degradation. Increasing the area managed as VRM Class II would increase the area in which development is restricted in order to be consistent with VRM Class II objectives. This, in turn, could reduce the overall level and intensity of development and help to reduce wildfire occurrence and intensity, which is consistent with impacts under Alternative D.

Impacts on wildland fire ecology and management resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be reduced due to the larger area of exclusion areas under the Proposed RMP. In total, 921,059 acres would be designated as exclusion for ROWs (494,350 more acres than under Alternative A) and 1,047,929 acres would be designated as ROW avoidance areas (311,791 more acres than under Alternative A). Similar to Alternative B, additional avoidance areas could decrease ROW and renewable energy development activities, and therefore help maintain healthy vegetative communities that are less susceptible to fire and reduce potential new ignition sources to a greater degree than under Alternative A.

Impacts on wildland fire ecology and management from managing recreation resources would be similar to those presented under Alternative A, except additional surface use restrictions would be placed on many of the SRMAs similar to under Alternative D. As described under Alternative D, additional surface use restrictions would reduce the intensity and extent of surface disturbance in these areas and thereby reduce wildfire intensity and the probability of fire occurrence.

Impacts on wildland fire ecology and management from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as “limited to existing roads and trails” would be changed to “limited to designated roads and trails” (3,367,223 acres), similar to the management actions under

Alternative D. If road and trail designation removes or limits access on certain routes during travel management planning, the potential for ignition sources from human use of those routes could be reduced compared to Alternative A.

Impacts on wildland fire ecology and management from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a larger area that would include use restrictions to protect important historic, cultural, wildlife, and scenic values. This, in turn, would reduce surface disturbing activities and indirectly help to protect and maintain healthy vegetative communities, which would reduce the potential wildfire occurrence and intensity. The acres designated as ACECs would increase to 935,135 acres (648,665 acres more than Alternative A), which would constitute more acreage than ACECs designated under Alternative D, but substantially less acreage than the ACECs designated under Alternative B.

# 4.11 ENERGY AND MINERALS

## 4.11.1 Alternative B

Under this alternative, 1,993,908 acres would be pursued for withdrawal from mineral location (Table 2-3 in Appendix V, Map 2-2). This represents a 258% increase in acres compared to Alternative A, and therefore impacts to locatable minerals would be increased compared to Alternative A, as fewer areas would be available for such mineral development.

Under Alternative B, it is projected that a total of 1,292 federal wells would be drilled during the next 20 years (73% decrease compared to Alternative A). The decrease in the number of wells drilled is due to an increase in areas that are closed to fluid mineral leasing and managed with NSO stipulations. Approximately 2,186,218 acres would be closed to new fluid mineral leasing (305% increase compared with Alternative A) and 813,354 acres would be managed as NSO areas (413% increase compared with Alternative A) (Table 2-4 in Appendix V, Map 2-7). Although fewer acres would be managed with CSU and seasonal restrictions, there would be far more acres managed as NSO or closed to new fluid mineral leasing, compared to Alternative A, which would result in greater impacts to fluid mineral leasing exploration, development, and operations in these areas.

Impacts to oil shale leasing and development would be similar to those presented under Alternative A, except the areas closed to oil shale leasing would increase to 2,122,282 acres (192% increase compared to Alternative A) (Table 2-7 in Appendix V, Map 2-12), which would preclude oil shale development in these areas and result in significantly less production from activities within the planning area.

Under Alternative B, 3,535,546 acres would be closed to coal exploration and development activities (628% increase compared to Alternative A) (Table 2-7 in Appendix V, Map 2-12), including areas outside the coal occurrence and development potential area.

Impacts to trona development would be similar to those described under Alternative A, except more areas would be closed to trona leasing and development. Under Alternative B, 49,224 acres would be closed to trona leasing and development within the KSLA (Table 2-7 in Appendix V, Map 2-12), which represents a 101% increase compared to Alternative A. This would increase the level of impacts to trona development and could result in further reduction of trona extracted via mining activities.

Under Alternative B, 2,581,741 acres would be closed to mineral material sales/disposals (Table 2-8 in Appendix V, Map 2-17). This would be an approximately 210% increase in acreage compared to Alternative A. Additionally, no new community pits, localized common use areas, or new mineral material sites would be established.

These management actions would cause greater impacts to saleable minerals by further precluding saleable mineral development and exploration, compared to Alternative A.

Approximately 2,480,876 acres would be designated as ROW exclusion areas, an approximately 481% increase in acres compared to Alternative A, and ROW avoidance acres would decrease by approximately 82%, to 133,903 acres (Table 2-10 in Appendix V, Map 2-27). Although ROW avoidance acres would decrease, the larger increase in ROW exclusion areas would result in greater impacts to mineral resources, by likely limiting future access to mineral exploration and development sites and could restrict the placement of facilities associated with mineral exploration, development, and operations, including pipelines, transmission lines, communication facilities, and roads.

Impacts to mineral development activities resulting from management of visual resources would be similar to those described under Alternative A, except more acres would be managed as VRM Class I, II, and III and fewer acres would be managed as VRM Class IV. Under Alternative B, 225,785 acres would be managed as VRM Class I (0.03% increase compared to Alternative A), 2,148,902 acres would be managed as VRM Class II (269% increase compared to Alternative A), 666,522 acres would be managed as VRM Class III (8% increase compared to Alternative A), and 563,754 acres would be managed as VRM Class IV (74% decrease compared to Alternative A) (Table 2-9 in Appendix V, Map 2-22). The large increase in VRM Class II acreage and large decrease in VRM Class IV acreage would greatly increase the impacts of visual resource management on mineral development activities.

## 4.11.2 Alternative C

Under this alternative, 234,961 acres would be pursued for withdrawal from mineral location (Table 2-3 in Appendix V, Map 2-3). Compared to Alternative A, impacts on mineral location would be reduced, as approximately 60% fewer acres would be pursued for withdrawal. Locatable mineral development activities would be precluded, sites would be relocated, and additional development costs could be incurred, but to a lesser degree than under Alternative A.

Under Alternative C, it is projected that a total of 4,919 federal fluid mineral wells would be drilled during the next 20 years (3% increase compared with Alternative A) (BLM RFD 2016). The increase in the number of wells drilled is due to a decrease in areas closed to fluid mineral development and managed with NSO stipulations. Approximately 225,782 acres would be closed to new fluid mineral leasing (58% decrease compared with Alternative A) and 15,542 acres would be managed as NSO areas (90% decrease compared to Alternative A) (Table 2-4 in Appendix V, Map 2-8). Although slightly more acres would have seasonal restrictions, there would be fewer acres designated as closed, NSO, and CSU, which would reduce impacts to fluid mineral leasing compared to Alternative A.

Impacts to oil shale leasing and development would be less than those discussed under Alternative A. The areas closed to oil shale leasing would decrease to 225,965 acres (Table 2-7 in Appendix V, Map 2-13), which represents a 70% decrease in such closures.

Impacts to coal leasing and development would be similar to those presented under Alternative A, except 226,219 acres would be closed to coal exploration and development activities (64% decrease compared to Alternative A) (Table 2-7 in Appendix V, Map 2-13). This would increase the area in which coal leasing is allowed and thereby could result in increased coal development and production and reduce the need to relocate facilities.

Impacts to trona development would be similar to those described under Alternative A, except fewer areas would be closed to trona leasing and development. Under Alternative C, 21,412 acres would be closed to trona leasing and development within the KSLA (Table 2-7 in Appendix V, Map 2-13), which represents a 12% decrease compared to Alternative A. This would reduce related impacts to trona mining activities, as more areas would be available for such mining.

Impacts to saleable mineral development would be similar to those presented under Alternative A, except the areas closed to mineral material sales would decrease to 226,421 acres (72% decrease compared with Alternative A). This would increase the area in which saleable mineral development is allowed and thereby could result in increased production of such mineral resources.

Under this alternative, ROW exclusion areas would decrease by approximately 47% compared to Alternative A, to 225,784 acres (Table 2-10 in Appendix V, Map 2-28). ROW avoidance areas would also decrease by approximately 96%, to 31,018 acres. These designations would likely reduce potential impacts to mineral resources by allowing increased future access to mineral exploration and development sites, and placement of facilities associated with mineral exploration and development, including pipelines, transmission lines, communication facilities, and roads.

Approximately 226,629 acres would be managed as VRM Class I, an increase of 912 acres (Table 2-9 in Appendix V, Map 2-23). Approximately 607,899 acres would be managed as VRM Class II, which represents an increase of 25,227 acres compared with Alternative A. This increase in VRM Class I and II acreage would be approximately 3%, which could result in greater impacts to mineral resources, compared to Alternative A, and could increase the cost of energy, renewable energy, and mineral development proposed in these areas. In areas with high mineral potential and topographical challenges, energy and mineral resources could be challenging or infeasible to recover and meet VRM Class II objectives. Under Alternative C, 395,683 acres would be managed as VRM Class III, a decrease of 219,809 acres compared to Alternative A. 2,374,706 acres would be managed as VRM Class IV, an increase of 194,283 acres compared to Alternative A; this would likely result in reduced impacts to mineral resources in these areas.

### 4.11.3 Alternative D

Under this alternative, 482,272 acres would be pursued for withdrawal from mineral location (Table 2-3 in Appendix V, Map 2-4). Compared to Alternative A, impacts on mineral location would be decreased, as approximately 40% fewer acres would be pursued for withdrawal.

Under Alternative D, it is projected that a total of 4,737 federal fluid mineral wells would be drilled during the next 20 years (1% decrease compared to Alternative A). The decrease in the number of wells drilled is due to an increase in areas that are closed to fluid mineral leasing. Approximately 768,989 acres would be closed to new fluid mineral leasing (42% increase compared with Alternative A) and 2,172 acres would be managed with NSO stipulations (99% decrease compared with Alternative A) (Table 2-4 in Appendix V; Map 2-9). Although more acres would be managed with seasonal restrictions and CSU stipulations, there would be significantly more acres managed as closed and with NSO stipulations compared to Alternative A, which would result in a reduced level of impact to fluid mineral leasing and development.

Impacts to oil shale leasing and development would be similar to those presented under Alternative A, except the areas closed to oil shale leasing would increase to 1,557,520 acres (114% increase compared to Alternative A) (Table 2-7 in Appendix V, Map 2-14), which would increase impacts on oil shale development and could result in decreased production of oil from shale resources.

Under Alternative D, 610,342 acres would be closed to coal exploration and development activities (26% increase compared to Alternative A) (Table 2-7 in Appendix V, Map 2-14).

Impacts to trona development would be the same as those described under Alternative A. Under Alternative D, 24,290 acres would be closed to trona leasing and development within the KSLA, which represents a <1% decrease compared to Alternative A (Table 2-7 in Appendix V, Map 2-14).

Impacts to saleable mineral development would be similar to those presented under Alternative A, except the areas closed to mineral material sales would decrease to 362,009 acres (57% decrease compared with Alternative A). This would increase the area in which saleable mineral development is allowed and thereby could result in increased production of such mineral resources.

Approximately 286,289 acres would be designated as ROW exclusion areas, an approximately 33% decrease in acres compared to Alternative A, and ROW avoidance acres would increase by approximately 88% to 1,388,618 acres. The significant decrease in ROW exclusion areas would likely reduce potential impacts to mineral resources by allowing increased future access to mineral exploration and development sites, and placement of facilities associated with mineral exploration, development, and operations, including pipelines, transmission lines, communication facilities, and roads.

Compared to Alternative A, this alternative would have fewer VRM Class IV areas and more VRM Class II and VRM Class III areas. Approximately 1,178,718 acres would be managed as VRM Class II, which represents a 102% increase in acres compared to Alternative A. Approximately 1,455,234 acres would be managed as VRM Class IV, which would be an approximately 44% reduction of acres compared to Alternative A. The large increase in VRM Class II acreage and large decrease in VRM Class IV acreage would greatly increase the impacts of visual resource management on mineral development activities.

## 4.11.4 Proposed RMP

Under this alternative, 900,204 acres would be pursued for withdrawal from mineral location (Table 2-3 in Appendix V). Compared to Alternative A, impacts on mineral location would be increased because approximately 62% more acres would be pursued for withdrawal. Conversely, compared to Alternative B, impacts on mineral location would be decreased because approximately 55% fewer acres would be pursued for withdrawal.

Although the BLM did not include the specific range of management for oil and gas leasing carried forward in the Proposed RMP in its RFD scenarios (BLM RFD 2016), the BLM anticipates that, based on the management of fluid leasable minerals under this alternative, the number of wells drilled would be greater than under Alternative B, but fewer than Alternatives A or D. Of the alternatives analyzed in the RFD, the effects on wells drilled would be most like those presented for Alternative D. The decrease in the number of wells drilled compared to Alternative A would be due to an increase in areas that are closed to fluid mineral leasing. Approximately 1,076,039 acres would be closed to new fluid mineral leasing, and 215,437 acres would be managed with NSO stipulations (Table 2-4 in Appendix V). Notably, the Proposed RMP includes a closure to fluid minerals within the KSLA for the protection of trona miners that are at risk when fluid mineral wells are drilled into active trona mining areas. Because there would be substantially more acres managed as closed and with NSO stipulations when compared to Alternative A, a reduced level of fluid mineral leasing and development would likely occur. Conversely, compared to Alternative B, there would be substantially fewer acres managed as closed and with NSO stipulations, thus decreasing effects on fluid mineral leasing compared to that alternative.

Impacts on oil shale leasing and development would be similar to Alternative A, except that the areas closed to oil shale leasing would increase to 1,115,490 acres or around 53% (Table 2-7 in Appendix V), which would increase impacts on oil shale development and could result in decreased production of oil from shale resources. Conversely, the Proposed RMP includes substantially fewer acres of oil shale closures than Alternative B, and adverse effects on development of this resource would be less than under that alternative.

Under the Proposed RMP, 766,880 acres are closed to coal development; therefore, effects from closures on coal exploration and development activities would be similar to those under Alternatives D, and substantially less than under Alternative B (Table 2-7 in Appendix V). The acres closed to coal exploration and development activities are approximately 58% more than under Alternative A.

Impacts on trona development would be similar to, but greater than, those described under Alternative A. Under the Proposed RMP, 569,554 acres would be closed to trona leasing and development, which represents an approximate 34% increase compared to Alternative A (Table 2-7 in Appendix V).

Impacts on saleable mineral development would be similar to those presented under Alternative A, except that the areas closed to mineral material sales would slightly increase to 884,906 acres (a 6% increase, compared with Alternative A). This would slightly decrease the area in which saleable mineral development is allowed and thereby could result in limited increased production of such mineral resources. Impacts on saleable mineral development would be substantially less than under Alternative B, which closes the majority of the planning area to mineral material sales.

Approximately 921,059 acres would be designated as ROW exclusion areas, an approximately 116% increase compared to Alternative A. The substantial increase in ROW exclusion areas would likely increase potential impacts on mineral resources by limiting future access to mineral exploration and development sites and placement of facilities associated with mineral exploration, development, and operations, including pipelines, transmission lines, communication facilities, and roads. Conversely, compared to Alternative B, which manages the majority of the planning area as ROW exclusion, effects would be reduced under the Proposed RMP.

Compared to Alternative A, this alternative includes fewer VRM Class IV and Class III areas, and more areas managed VRM Class II. Approximately 1,301,004 acres would be managed as VRM Class II, which represents a 123% increase in acres, compared to Alternative A. Approximately 1,929,258 acres would be managed as VRM Class IV, which would be a limited reduction of approximately 12%, compared to Alternative A. The large increase in VRM Class II acreage would greatly increase the impacts of visual resource management on mineral development activities compared to Alternative A. Conversely, substantially fewer acres are managed as VRM Class II compared to Alternative B, thereby reducing impacts of visual resource management on mineral development activities compared to that alternative.

# 4.12 CULTURAL RESOURCES

## 4.12.1 Alternative B

Impacts to cultural resources from wild horses would be the same as those described under Alternative A. Under this alternative, impacts on cultural resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts to cultural resources from the management of soil and geologic resources would be similar to those discussed under Alternative A, except there would be more measures to protect soil and maintain or improve soil health. Under this alternative, prohibiting surface disturbing activities and management for soil health, cover, and stability could provide greater protections to unknown and known cultural resources by reducing the potential for detrimental erosion impacts to a greater degree compared to Alternative A.

Water resource management would have similar impacts to cultural resources compared to Alternative A. Alternative B offers greater protections to unknown and known cultural resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Managing all lands identified as having wilderness characteristics specifically to preserve those characteristics would reduce surface disturbing activities that could directly or indirectly expose, damage, or destroy known and unknown cultural resources. Limiting human access and activities could reduce the potential for structure and artifact vandalism. Under Alternative B, closing lands with wilderness characteristics to fluid minerals

development, mineral material sales/disposal, solid mineral leasing, and management as an exclusion area for ROWs would offer additional protections from surface occupancy and surface disturbing activities.

Impacts to cultural and historic resources from fluid mineral management would be similar to those described under Alternative A; however, larger areas of land would be closed to fluid mineral development and managed with NSO stipulations. Compared to Alternative A, opportunities to explore, locate, and develop fluid minerals in the planning area would be reduced overall. Under Alternative B, approximately 1,292 oil, gas, and CBNG wells would be developed within the planning area (Map 2-7), which would be 3,481 fewer wells as compared to Alternative A. There would be 8,892 acres of initial surface disturbance and 2,566 acres of long-term disturbance from fluid mineral development, 23,939 fewer acres of initial surface disturbance, and 6,900 fewer acres of long-term disturbance compared with Alternative A. Under this alternative, 2,186,218 acres in the planning area are closed to fluid mineral exploration, leasing, and development (1,646,197 more acres than Alternative A). Under Alternative B, 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. Applying CSU stipulations to 99,674 acres, which is 621,458 fewer acres than Alternative A, and applying TLS to 713,837 acres, which is 1,127,130 fewer acres than Alternative A, would offer greater protections than Alternative A by reducing the amount of land available for oil and gas development potentially impacted by surface disturbing activities.

Approximately 2,186,218 acres would be closed to geothermal resource development, 1,646,197 more acres than Alternative A. Limiting human access and activities could reduce the potential for structure and artifact vandalism. The discovery of previously unknown cultural resources would be less likely to occur in areas where surface disturbing activities are low. In the areas where geothermal resources could be developed, lease stipulations could provide greater protections to cultural resources by reducing the impacts of surface disturbing activities and human presence in the planning area.

Impacts from locatable and saleable mineral exploration, developments, and operations would be similar to those under Alternative A. Approximately 1,993,908 acres would be proposed for withdrawal from locatable mineral entry (1,437,350 more than Alternative A) and 2,581,741 acres would be unavailable for mineral material sales and disposals, 1,748,022 acres more than Alternative A (Maps 2-2 and 2-17).

Impacts to cultural resources from the development of solid leasable minerals would be similar to those described under Alternative A. Under Alternative B, 3,535,546 acres would be closed to coal, 2,122,282 acres would be closed to oil shale, and 2,119,920 acres would be closed to trona leasing and development. The protections to lands closed to solid mineral development would be applied to 2,741,709 more acres of land closed to coal, 1,394,477 more acres of lands closed to oil shale, and 1,665,326 more acres closed to trona compared to Alternative A. The management could provide greater protections to cultural resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Wildland fire and ecology management actions would have similar impacts to cultural resources compared to Alternative A. The prohibition on the use of chemical fire suppression agents within ¼ mile of rock art sites and special designations could protect cultural and historic resources to a greater degree compared to Alternative A. The management would generally provide greater protections to soil stability and thereby reduce the potential for detrimental erosion that could impact unknown and known cultural resources and sites.

Management actions to maintain, restore, and enhance forests and woodlands would have similar impacts to cultural and historic resources as Alternative A, although there would be an emphasis on using natural processes to improve vegetative health and to benefit other resources. The management could benefit known and unknown cultural resources by reducing the potential for amplified erosion and setting degradation to a greater degree compared to Alternative A.

Management actions to maintain, restore, and enhance grassland, shrubland, riparian, and wetland habitats would have similar impacts to cultural resources when compared to Alternative A. Under Alternative B, the management could benefit known and unknown cultural resources by reducing damage or destruction of resources, indirect impacts from erosional forces, and setting degradation to a slightly greater degree when compared to Alternative A.

Impacts to cultural resources from the management of fish and wildlife resources and special status species are similar to those described under Alternative A. In addition, surface use restrictions, NSO and TLS for fluid minerals, closures to solid mineral leasing and mineral material sales/disposals, ROW avoidance or exclusions, and vehicle access and travel limitations would also be applied at various sites to reduce surface disturbance. The management under Alternative B could provide greater protection to cultural resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Management actions designed to protect the cultural resources focus largely on human activities that cause surface disturbances which have the potential to impact soil stability, amplify erosion, inflict direct damage or destruction, cause indirect loss of scientific information, and degrade setting. Compared to Alternative A, actions emphasizing avoidance of development activities at National Register-eligible properties offers greater protections to cultural resources by reducing potentials for detrimental surface disturbing activities. The conservation and preservation of cultural resources would support accomplishing the recovery of scientific data; site stewardship programs and public education opportunities for NHTs and other sites would help to protect sites from visitor actions that could harm or destroy resources. The management under Alternative B could provide greater protection to known and unknown cultural resources by reducing the potential for direct damage or destruction of resources, indirect impacts from erosional forces, and setting degradation. Less human presence could reduce the potential for vandalism and unauthorized removal of artifacts. The discovery of previously unknown cultural resources would be less likely to occur in areas where surface disturbing activities are low.

Management actions to minimize impacts to areas of tribal importance (sacred, spiritual, respected, and/or traditional cultural settings, properties, or resources) within the planning area would be have similar impacts on cultural resources as described under Alternative A. Additional management to reduce surface disturbing activities and human presence in areas of tribal importance could lower the potential for direct damage or destruction to cultural and historic resources, indirect impacts from erosional forces, and setting degradation.

Paleontological resource management actions would have similar impacts on cultural resources as those described under Alternative A. The prohibition of surface disturbing activities in Adobe Town and Desolation Flat/Desolation Point areas could provide additional protections to known and unknown cultural resources that exist in those areas.

Impacts to cultural resources from VRM would be similar to Alternative A, except that the VRM Class II acreage is greater under this alternative. Approximately 225,785 acres would be classified as VRM Class I (68 acres more than Alternative A), 2,148,902 acres VRM Class II (1,566,230 more acres than Alternative A), 666,522 acres VRM Class III (51,030 acres more than Alternative A) and 563,754 acres as VRM Class IV (1,616,669 fewer acres than Alternative A). More acreage managed under VRM Class II would provide greater protections to known and unknown cultural resources by minimizing surface disturbing activities, human presence, and occupancy which could lower the potential for direct damage or destruction, indirect impacts from erosional forces, and setting degradation.

Land resource management actions related to the real estate transactions of acquisition, disposal, and/or pursuing withdrawal would have similar impacts to cultural resources as described under Alternative A, depending on the lands withdrawn or acquired.

Impacts to cultural resources from the management of renewable energy projects are similar to Alternative A, except additional measures and BMPs to protect resources and resource uses would be applied. These stipulations could provide greater protections to cultural resources by reducing the extent of human-caused surface disturbing activities and human presence.

Impacts to cultural resources from the management of ROWs would be similar to those described under Alternative A. In total, 2,480,876 acres would be designated as exclusion areas for ROWs (2,130,936 more than Alternative A) and 133,903 acres would be designated as ROW avoidance areas (602,235 fewer than Alternative A). Alternative B would provide greater protections to cultural resources by reducing the extent of human-caused surface disturbing activities and human presence.

Impacts to cultural resources from the management to designate and manage back country byways would be similar to Alternative A, except additional back country byways would be considered. Byways could provide opportunities for enhancing visitor knowledge and understanding of the significant natural and cultural resources located in their vicinity, which could improve appreciation and protection. Additional byways could increase the presence of visitors, which could increase the potential for surface disturbing activities and damages to cultural resources through unauthorized removal of artifacts or intentional acts of vandalism.

Impacts to cultural resources from the management of livestock grazing would be similar to those described under Alternative A. The management under Alternative B could provide greater protections to cultural resources by reducing surface disturbance. The management could reduce the opportunities for livestock making direct physical contact to cultural or historic structures or artifacts which could prevent damage or destruction of the resources to a greater degree compared to Alternative A.

Impacts to cultural resources from the management of recreation would be similar to Alternative A. The Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, Killpecker Sand Dunes, Oregon and Mormon Pioneer National Historic Trails, and the Wind River Front SRMAs would not be retained. Not retaining the SRMAs and greater restriction for surface disturbing activities and visual disturbances could potentially reduce human and vehicle access to those areas. The management could provide greater protections to cultural resources by reducing the extent of surface disturbing activities and human presence. Reducing surface disturbing activities would lower potentials for direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation. Reduced human presence could lower the potential for vandalism and unauthorized removal of artifacts. The discovery of previously unknown cultural resources would be less likely to occur in areas where surface disturbing activities are low.

Management to protect congressionally designated and/or eligible trails, and NHTs would have similar impacts to cultural resources compared to Alternative A, except there would be greater protective measures proposed such as larger buffer zones and specific closures and restrictions.

Management of WSAs and WSRs would impact cultural resources similar to those described under Alternative A, but there would be a greater emphasis on protecting wilderness setting and viewshed values. The management would reduce the potential for surface disturbing activity. Reducing surface disturbing activities would lower the potential for direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation of cultural resources.

Impacts to cultural resources from the management of ACECs would be similar to those described under Alternative A. Under Alternative B, 1,605,660 acres of lands would be managed as ACECs, 1,319,210 more acres compared to Alternative A. The additional management for ACECs would provide greater protections against surface disturbance. Managing all the ACECs consistent with VRM Class II objectives would provide greater protection of the viewsheds and would maintain the cultural and historic settings surrounding protected sites. The

management could provide greater protection to known and unknown cultural resources by reducing the potential for direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation.

## 4.12.2 Alternative C

Impacts to cultural resources from the management of soil, geologic, water, grassland and shrubland, areas of tribal importance, lands and realty, and renewable energy resources would be the same as those described under Alternative A. Under Alternative C, impacts on cultural resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts to cultural resources from managing lands with wilderness characteristics to not protect those characteristics would result in greater surface disturbing activities and increased presence of humans. This could potentially increase impacts on known and unknown cultural resources through direct resource damage or destruction, amplification of erosional forces, degradation of setting, and vandalism.

Impacts to cultural resources from the management of leasable minerals would be the same as those described under Alternative A. Under this alternative, approximately 4,919 oil, gas, and CBNG wells would be developed within the planning area (Map 2-8), which would be 146 more wells as compared to Alternative A. There would be 33,840 acres of initial surface disturbance and 9,758 acres of long-term disturbance from fluid mineral development; 1,009 additional acres of initial surface disturbance and 292 more acres of long-term disturbance compared with Alternative A.

Approximately 225,782 acres in the planning area would be closed to fluid mineral exploration, leasing, and development (314,239 fewer acres than under Alternative A). Under Alternative C, 15,542 acres would be managed with NSO stipulations, which is 143,069 fewer acres than under Alternative A. Applying CSU stipulations (215,890 acres; which is 505,242 fewer than Alternative A) and TLS (1,355,485 acres; which is 485,482 less than Alternative A) would overall offer fewer protections than Alternative A due to total fewer acres with lease stipulations (Map 2-8).

Impacts to cultural resources from the development of solid leasable minerals would be similar to those described under Alternative A. Under Alternative C, 226,219 acres would be closed to coal and 225,965 acres would be closed to oil shale and trona. Approximately 259,745 fewer acres would be closed to coal leasing, 501,840 fewer acres would be closed to oil shale leasing, and 228,629 fewer acres would be closed to trona leasing compared with Alternative A. The smaller areas of closures could result in increased surface disturbance, possibly increasing the potential for damage to cultural resources.

Impacts from locatable and saleable mineral management on cultural resources would be similar to those described under Alternative A. Under Alternative C, 234,961 acres would be proposed for withdrawal from locatable mineral entry (321,597 fewer than Alternative A) and 226,421 acres would be closed to mineral material sales and disposals (607,298 fewer than Alternative A) (Maps 2-3 and 2-18). The management would provide fewer protections to cultural resources by increasing the potential extent of surface disturbing activities and human presence in the planning area compared to Alternative A.

Impacts from wildland fire management on cultural resources would be similar to those described under Alternative A. Management such as wildfire suppression and a smaller buffer distance for the use of chemical fire suppression agents could lead to fewer protections for cultural resources from fire suppression activities and possible damage to rock art sites from suppression chemicals. The management under Alternative C could decrease the potential for direct fire damage to known cultural resources, but if suppression activities involved significant land surface disturbances, direct and indirect impacts to cultural resources could occur compared to Alternative A.

Impacts to cultural resources from forest and woodland management would be similar to those described under Alternative A. The management could open areas to harvests, allow greater flexibility in harvest methods and timber treatments, and thereby potentially increase the extent of surface disturbing activities compared to Alternative A.

Impacts to cultural and historic resources from the management of riparian, wetland, fish, wildlife, and special status species habitats would be similar to those described under Alternative A, except that smaller surface disturbing and/or surface use distance buffer zones would be applied around developments and operations. The management could increase the potential for direct destruction or damage to known and unknown cultural resources through surface disturbance, impacts to soil/rock stability, and amplified detrimental erosion.

Impacts from the management of cultural and paleontological resources would be similar to those described under Alternative A, except that smaller surface disturbance and setting buffer distances would be applied around known cultural and paleontological sites. Smaller sized buffer zones under this alternative could open land in the planning area to more surface disturbing activities and human access. Protections applied to paleontological sites would generally provide similar protections to any known or unknown cultural sites in those same locations.

Impacts to cultural resources from VRM would be the same as those described under Alternative A. Under Alternative C, 226,629 acres would be managed as VRM Class I (912 more than Alternative A), 607,899 acres VRM Class II (25,227 more than Alternative A), 395,683 acres VRM Class III (219,809 fewer than Alternative A), and 2,374,706 acres as VRM Class IV (194,283 more than Alternative A).

Under Alternative C, 225,784 acres would be managed as ROW exclusion areas and 31,081 acres would be managed as ROW avoidance areas (200,925 and 715,120 fewer acres than Alternative A, respectively). Fewer acres of ROW exclusion and avoidance areas could open areas in the planning area to more surface disturbing activities and human access compared to Alternative A. These actions could increase the potential for direct destruction or damage to known and unknown cultural resources through surface disturbance and occupancy, impacts to soil or rock stability, and amplified detrimental erosion.

Under Alternative C, the management of not retaining back country byways could reduce public visitation to these areas, which could decrease the potential for damage to cultural resources through unauthorized removal of cultural artifacts or intentional acts of vandalism. However, opportunities for public education or enjoyment of cultural resources would be reduced or lost under Alternative C by not retaining or designating byways.

Impacts to cultural resources from the management of livestock grazing would be similar to Alternative A. Additional management under Alternative C allowing livestock in riparian areas could result in vegetation loss, surface disturbance and amplified erosion, which could inflict direct damage or destruction to cultural resources, and/or degrade their settings. Reducing total authorized use for grazing could reduce contact from livestock on cultural resources; however, because management is continuing actual livestock use, it is likely that further impacts would occur beyond those described under Alternative A.

Impacts to cultural resources from recreation management would be similar to Alternative A. Fewer restrictions under Alternative C could open areas in the planning area to more surface disturbing activities and allow more access into areas with fewer recreational management controls. The management could increase the potential for direct destruction or damage to known and unknown cultural resources through surface disturbance, impacts to soil/rock stability, and amplified erosion. Surface disturbing activity or occupancy could cause degradation of the setting in which the cultural resource exists. Increased presence of humans could result in artifact vandalism or removal.

Impacts to cultural resources from the management to protect congressionally designated and/or eligible trails, and NHTs would be similar to those described under Alternative A. Fewer restrictions on surface disturbing

activities, vehicle travel, and more relaxed VRM classifications under this alternative could impact known and unknown cultural resources through an increase in surface disturbing activity and human presence compared to Alternative A.

Impacts to cultural resources from the management of WSAs would be to the same as those described under Alternative A. No management for WSRs could potentially increase access, travel, and surface disturbance along the Sweetwater River, which could increase the potential for impacts to known and unknown cultural resources in those locations. An increase in surface disturbing activities could result in direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation.

Under this alternative, no ACECs would be retained. The management would provide fewer protections to known and unknown cultural resources in these areas by increasing the potential for surface disturbing activities or occupancy, and an increase in the presence of humans. Surface disturbing activity or occupancy has the potential to degrade or destroy cultural resources through impacts to soil stability, amplified erosion, direct damage or destruction to resources, and diminished viewshed or setting. An increased presence of humans could raise the potential for vandalism and the unauthorized removal of artifacts. The discovery of previously unknown cultural resources would be more likely to occur in areas where surface disturbing and occupancy activities are high.

### 4.12.3 Alternative D

Impacts to cultural resources from soil, geologic, water, fire and fuels, woodlands, vegetation, riparian and wetland, fish and wildlife, special status species, paleontology, back country byways, and livestock grazing management would be the same as those described under Alternative A. Under Alternative D, impacts on cultural resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts to cultural resources from the management of lands with wilderness characteristics would be very similar to those described under Alternative B. Fewer areas would have management specifically for preservation of wilderness characteristics, which could allow for more surface disturbing activities compared to Alternative B.

Under Alternative D, approximately 4,737 oil, gas, and CBNG wells would be developed within the planning area (Map 2-9), which would be 36 fewer wells as compared to Alternative A. There would be 32,587 acres of initial surface disturbance and 9,397 acres of long-term disturbance from oil and gas development, 244 fewer acres of initial surface disturbance, and 69 fewer acres of long-term disturbance compared with Alternative A. Under this alternative, 768,989 acres in the planning area are closed to fluid mineral exploration, leasing, and development (228,968 more acres than Alternative A). Under Alternative D, 2,172 acres would be managed with NSO stipulations, which is 156,439 fewer acres than Alternative A. Applying CSU stipulations on 1,238,899 acres (517,767 more acres than Alternative A) would offer similar protections to cultural resources within these areas as described under Alternative A.

Impacts to cultural resources from geophysical exploration would be the same as those described under Alternative B.

Impacts from locatable mineral exploration, development, and operations would be very similar to those described under Alternative A. Under Alternative D, 482,272 acres of land would be proposed for withdrawal from locatable mineral entry, 74,286 fewer acres compared to Alternative A. Managing less land available for locatable mineral development activities could provide fewer protections to cultural resources from human-caused surface disturbing activities and human presence in the planning area.

Impacts from saleable mineral development would be similar to those described under Alternative A. Under Alternative D, 362,009 acres would be closed to saleable mineral disposal, 471,710 more acres compared to

Alternative A. Cultural resources could be vulnerable to surface disturbance and human activities to a greater degree compared to Alternative A.

Impacts to cultural resources from solid mineral leasing would be similar to those described under Alternative A. Under Alternative D, 610,342 acres of land would be closed to coal leasing, 124,478 more acres compared to Alternative A; 2,401,135 acres would be closed to oil shale leasing, 829,715 fewer acres compared to Alternative A; and 389,552 acres would be closed to trona leasing, 34,081 fewer acres compared to Alternative A. The smaller areas of land closed to coal, oil shale, and trona leasing could result in increased surface disturbance and thereby increase the potential for damage to cultural resources.

Under Alternative D, management of cultural resources would be similar to Alternative A, however additional management to protect resources from surface disturbance or disruptive activities would be applied. Minimizing surface disturbing activities and human presence in areas of cultural resources and of tribal importance would lower the potential for direct damage or destruction to known and unknown cultural resources that exist in those same areas; as well as indirect impacts from erosional forces and setting degradation.

Impacts to cultural resources from the management of visual resources would be similar to those described under Alternative A. Approximately 225,703 acres would be classified as VRM Class I (14 acres fewer than Alternative A), 1,178,718 acres as VRM Class II (596,046 acres more than Alternative A), 738,311 acres as VRM Class III (122,819 acres more than Alternative A) and 1,455,234 acres as VRM Class IV (725,189 acres less than Alternative A). More acreage managed under VRM Class II and less acreage under VRM Class IV would provide greater protections to known and unknown cultural resources compared to Alternative A.

Impacts on cultural resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres, 140,420 fewer acres compared with Alternative A and 1,388,618 acres would be managed as ROW avoidance areas, 652,480 more acres compared with Alternative A (Table 2-10 in Appendix V, Map 2-29). Exclusion and avoidance areas could reduce potential impacts on cultural resources from ROW development, thereby helping to maintain the integrity of cultural resources in the planning area.

Impacts to cultural resources from recreation management would be similar to those described under Alternative A. SRMA management could reduce surface disturbance in some areas and protect cultural resources from damage or exposure from excavation or erosion. However, increased use in the remaining SRMAs could lead to vegetation loss or erosion, which could expose unknown cultural resources, but could put the resources at risk from vandalism, damage, or illegal collection.

Impacts to cultural resources from the management to protect congressionally designated and/or eligible trails, and NHTs would be similar to those described under Alternative A. Under Alternative D, additional protective measures proposed such as larger buffer distances, specific closures, and restrictions would be applied to these areas to a greater degree when compared to Alternative A.

Impacts to cultural resources from the management of WSAs would be very similar to those described under Alternative B. Fewer protections for surface disturbance within these areas could increase the potential for direct or indirect damage or destruction to cultural resources as compared to Alternative B. However, the discovery of previously unknown cultural resources could increase in areas where surface disturbing activities occur.

Impacts to cultural resources from the management of WSRs would be the same as those described under Alternative B.

Impacts to cultural resources from the management of ACECs and special management areas would be similar to those described under Alternative A. Under Alternative D, 246,634 acres would be managed as ACECs, 39,816

fewer acres compared to Alternative A. Approximately 312,980 acres would be special management areas, 267,030 fewer acres compared to Alternative A.

## 4.12.4 Proposed RMP

The Proposed RMP would mostly consist of a mix of management actions from Alternative B and Alternative D. In general, the Proposed RMP would have greater protections for cultural resources than Alternatives A, C, and D, but fewer than Alternative B. Under the Proposed RMP, impacts on cultural resources from water resource management, geophysical exploration, fire and fuels, forests and woodlands, vegetation, riparian and wetland, fish and wildlife, special status species, paleontological resources, back country byways, and livestock grazing management would be the same as those described under Alternative A. Under the Proposed RMP, impacts on cultural resources would not be anticipated, or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts on cultural resources from the management of soil and geological resources would be similar to those discussed under Alternative A, except that, similar to Alternatives B and D, there would be more measures to protect soil properties and maintain or improve soil health. Management for soil health, cover, and stability could provide greater protections to unknown and known cultural resources by reducing the potential of erosion.

Management actions related to the preservation of land with wilderness characteristics under the Proposed RMP are mostly the same as those described under Alternative D. No areas under the Proposed RMP would have management specifically for the preservation of lands with wilderness characteristics, allowing for a greater potential for ground-disturbing activities, which could affect known and unknown cultural resources.

Impacts from locatable, leasable, and saleable mineral exploration, development, and operations would be similar to those described under Alternative A, except that generally more of the planning area would be closed/withdrawn or managed for surface use restrictions. Under the Proposed RMP 1,076,039 acres in the planning area are closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (536,018 more acres than Alternative A); 900,204 acres are proposed for withdrawal from locatable mineral entry (343,646 more acres than Alternative A); and 884,906 acres are closed to saleable mineral development and/or disposals (51,187 more acres than Alternative A) (Tables 2-3, 2-4, and 2-8 in Appendix V). Activities related to shaling and other methods of resource extraction could affect cultural resources through potential soil exposure to wind and water erosion and subsequent soil degradation and loss. The impact would be mitigated by following Wyoming State Protocol, National Historic Preservation Act (NHPA) Section 106, and BLM guidelines, wherever applicable, which could add additional costs to project development and management. Under the Proposed RMP, more acres would be closed to fluid minerals (99% increase compared with Alternative A), and many areas that remain open would be subject to NSO and CSU stipulations, which would avoid or reduce potential impacts on cultural resources from surface-disturbing activities, compared to Alternative A. However, compared to Alternative B, management of mineral resources under the Proposed RMP would allow substantially more development, which would increase the potential for effects on known and unknown cultural resources, compared to that alternative.

Management actions designed to protect cultural resources under the Proposed RMP would be similar to those described under Alternative B, with a few actions included from Alternative D. Management actions for precontact steatite/soapstone quarry sites under the Proposed RMP would be the same as Alternative D. The Proposed RMP would allow for the potential of ROW expansion in these areas, as well as CSUs for fluid mineral development, and would require tribal consultation for all activities that could impact steatite outcrops. Management actions under the Proposed RMP for rock art sites, which would be designated under VRM Class II, would be the same as Alternative D. Rather than the 3-mile protective buffer zone proposed in Alternative B, the Proposed RMP would adopt a 0.5-mile buffer within which ground-disturbing activities would be permitted only if site-specific analysis determines no adverse effects will occur. Within 0.25 mile of a designated rock art site, activities would only be permitted if they do not adversely affect Native American, cultural, or historical values, as outlined in

Alternative D. Regions of the Playa Lake area with high cultural resource density would not be designated as new historic districts under the Proposed RMP, following Alternative D, rather than Alternative B. Similarly, specific cultural sites would largely be managed in accordance with Alternative D, allowing ground-disturbing activities in their vicinity, provided that site-specific analysis determines no adverse effects would occur on nearby cultural resources. Pine Springs would be designated a VRM Class II, with management actions prohibiting ground-disturbing activities within the site boundary. The West Sand Dunes Archaeological District would be managed under the Proposed RMP according to the protocol outlined in Alternative D. It would not be designated as a special management area and would be renamed the West Sand Dunes Paleosol Deposition Area. The Proposed RMP follows the same management action as Alternative D regarding potential ground-disturbing activities within the JMH planning area. The buffer zone to avoid ground-disturbing activities, including geophysical survey, in the vicinity of sites eligible for inclusion in the NRHP under Criterion D would be adjusted to 100 feet, as opposed to the 500 feet buffer proposed in Alternative B.

Impacts on cultural resources from VRM would be similar to Alternative A, except that more acres would be managed VRM Class II, and fewer acres would be managed as VRM Class IV. Approximately 1,301,004 acres would be classified as VRM Class II (718,332 more acres than Alternative A) and 1,929,258 acres as VRM Class IV (251,165 fewer acres than Alternative A). More acreage managed under VRM Class II and less acreage under VRM Class IV would provide greater protections to cultural resources by minimizing surface-disturbing activities, human presence, and occupancy, which could lower the potential for direct damage or destruction and indirect impacts from erosional forces. Impacts on cultural resources from VRM under the Proposed RMP would be most similar to those described under Alternative D.

Impacts on cultural resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except that acres of ROW exclusion and ROW avoidance areas would be increased to 921,059 acres (116% increase compared with Alternative A) and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). ROW exclusion and (to a lesser extent) avoidance areas could reduce potential impacts on cultural resources from ROW development.

Impacts on cultural resources from recreation management under the Proposed RMP would be similar to those described under Alternative A, except that, similar to Alternative D, the Proposed RMP would have fewer potential impacts from recreation on cultural resources. Under the Proposed RMP, 159,505 fewer acres are designated as SRMAs compared with Alternative A. SRMA management could reduce surface disturbance in some areas and protect cultural resources from damage or exposure from excavation or erosion. However, increased use in the remaining SRMAs could lead to vegetation loss or erosion, which could expose unknown cultural resources and put the resources at risk from vandalism, damage, or illegal collection.

Impacts on cultural resources from managing special designation areas would be similar to those described under Alternative A, except that they would occur over more acres and thereby offer greater protections to important historic, cultural, wildlife, special status plants, and scenic values in these areas, as determined by the management area direction. The acres designated in 12 ACECs under the Proposed RMP would increase to 935,135 acres (226% increase compared with 10 ACECs under Alternative A). Overall management of special designation areas under the Proposed RMP would limit surface disturbance to a greater extent than Alternative A by restricting the types of activities allowed in the areas, thus decreasing the potential for impacts on cultural resources. The Proposed RMP would have greater protection of cultural resources through management of ACECs when compared to Alternatives A, C, and D, but fewer than Alternative B.

NHT management and beneficial impacts on cultural resources due to restrictions on surface-disturbing activities would be the same as under Alternative D, but substantially less than under Alternative B. Projects involving ground disturbance may affect known and unknown cultural resources throughout the planning area.

Impacts on cultural resources from WSA management would be the same as those described under Alternative D.

Impacts on cultural resources from the management of WSRs would be the same as those described under Alternative B.

# 4.13 PALEONTOLOGICAL RESOURCES

## 4.13.1 Alternative B

Impacts to paleontological resources from areas of tribal importance, lands and realty, and renewable energy management would be the same as those presented under Alternative A. Under this alternative, impacts on paleontological resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts to paleontological resources from the management of soil and geologic resources would be similar to those discussed under Alternative A, except there would be more measures to protect soil properties and maintain or improve soil health. This alternative could provide greater protections to unknown and known paleontological resources by reducing the potential for detrimental erosion impacts as compared to Alternative A.

Impacts to paleontological resources from the management of water resources would be similar to those discussed under Alternative A except that greater surface disturbing protections would be applied. Alternative B offers greater protections to unknown and known paleontological resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Managing all lands identified as having wilderness characteristics specifically to preserve those characteristics would provide additional protections to soil health and stability, and from surface disturbing activities that could directly or indirectly expose, damage, or destroy known and unknown paleontological resources. Surface disturbing activities and occupancy could cause degradation of the setting in which the paleontological resource exists. Limiting human access and activities could reduce the potential for fossil vandalism. Under Alternative B, closing lands with wilderness characteristics to fluid minerals development, mineral material sales/disposal, solid mineral leasing, and management as an exclusion area for ROWs would offer additional protections from surface occupancy and surface disturbing activities. The discovery of previously unknown paleontological resources would be less likely to occur in areas where surface disturbing and occupancy activities are low.

Impacts to paleontological resources from fluid mineral management would be similar to those described under Alternative A. Under Alternative B, approximately 1,292 oil, gas, and CBNG wells would be developed within the planning area (Map 2-7), which would be 3,481 fewer wells as compared to Alternative A. There would be 8,892 acres of initial surface disturbance and 2,566 acres of long-term disturbance from fluid mineral development, 23,939 fewer acres of initial surface disturbance, and 6,900 fewer acres of long-term disturbance compared with Alternative A. Under this alternative, 2,186,218 acres in the planning area are closed to fluid mineral exploration, leasing, and development, 1,646,197 more acres than Alternative A. Under Alternative B, 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. Applying CSU stipulations (within 99,674 acres, 621,458 fewer than Alternative A) and TLS (within 713,837 acres, 1,127,130 fewer than Alternative A) would offer greater protections than Alternative A due to fewer acres in the Alternative B scenario being potentially impacted by surface disturbing activities.

Impacts from locatable, leasable, and saleable mineral exploration, development, and operations would be similar to those under Alternative A. Approximately 1,993,908 acres would be withdrawn from locatable mineral entry (1,437,350 more than Alternative A) and 2,581,741 acres would be closed to mineral material sales (1,748,022 more than Alternative A) (Maps 2-2, 2-7, and 2-12). Under Alternative B, 3,535,546 acres would be closed to coal, 2,122,282 acres would be closed to oil shale, and 2,119,920 acres would be closed to trona leasing and development. The protections to lands unavailable to solid mineral development would be applied to 2,741,709

more acres of land closed to coal, 1,394,477 more acres of lands closed to oil shale, and 1,665,326 more acres of land closed to trona compared to Alternative A. The management could provide greater protections to paleontological resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Impacts to paleontological resources from wildland fire and ecology management would be similar to those described under Alternative A. The prohibition on the use of chemical fire suppression agents within ¼ mile of rock art sites and other sensitive areas is more restrictive than under Alternative A. These actions could provide greater protections to soil stability and thereby reduce the potential for detrimental erosion that could impact unknown and known paleontological resources and sites.

Management actions to maintain, restore, and enhance forests and woodlands would have similar impacts to paleontological resources as Alternative A. The management could benefit known and unknown paleontological resources by reducing the potential for amplified erosion and setting degradation. Prohibiting pre-commercial thinning would reduce surface disturbing activities. Management to leave timber harvest areas to revegetate naturally could potentially result in a lengthier period of soil instability, which could amplify detrimental erosion and lead to damage to paleontological resources. However, increased erosion could expose unknown resources to discovery and study.

Management to maintain, restore, and enhance grassland, shrubland, riparian, and wetland habitats would have similar impacts to paleontological resources when compared to Alternative A. All plans and projects applied to these habitats would be designed to reduce surface disturbing/occupancy activities. The management could benefit known and unknown paleontological resources by reducing direct damage or destruction, indirect impacts from erosional forces, and setting degradation.

Impacts to paleontological resources from the management of fish and wildlife resources and special status species are similar to those described under Alternative A. In addition, surface use restrictions would be applied at various sites to reduce surface disturbance. The management under Alternative B could provide greater protection to paleontological resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Cultural resource management actions would have similar impacts to paleontological resources as those described under Alternative A, except decreasing the setting to be protected surrounding significant rock art sites would provide fewer protections to the setting of paleontological resources that exist in those same areas. Additional management under Alternative B could decrease the potential for direct destruction or damage to known and unknown paleontological resources through surface disturbance and occupancy, impacts on soil or rock stability, amplified detrimental erosion, degradation of setting, and vandalism.

Impacts from paleontological resource management would be similar to Alternative A, except that site-specific analysis and potential adverse effect mitigation would occur prior to considering surface disturbing activities at known significant paleontological resource localities. Additionally, surface disturbing activities would be prohibited in Adobe Town and Desolation Flat/Desolation Point areas. This management would provide additional protections to known and unknown paleontological resources. The conservation and preservation of paleontological sites supports accomplishing the recovery of scientific data. Site stewardship programs and public education opportunities for these sites would help to protect sites from visitor actions that could harm or destroy these resources.

Impacts to paleontological resources from VRM would be similar to Alternative A, except that the VRM Class II acreage is greater under this alternative. Approximately 225,785 acres would be managed as VRM Class I (68 more acres than Alternative A), 2,148,902 acres as VRM Class II (1,566,230 more acres than Alternative A), 666,522 acres VRM Class III (51,030 more acres than Alternative A), and 563,754 acres as VRM Class IV

(1,616,669 fewer acres than Alternative A). More acreage managed under VRM Class II would provide greater protection to paleontological resources by minimizing surface disturbing activities and human presence in these areas, which could lower the potential for direct damage or destruction, indirect impacts from erosional forces, and setting degradation.

Impacts to paleontological resources from the management of ROWs would be similar to those described under Alternative A, except no new corridors would be designated under Alternative B. In total, 2,480,876 acres would be managed as ROW exclusion areas, 2,130,936 more than Alternative A, and 133,903 acres would be managed as ROW avoidance areas, 602,235 fewer acres than Alternative A. Fewer acres of ROWs would provide greater protections to paleontological resources by reducing the extent of human-caused surface disturbing activities and human presence in the planning area.

Impacts to paleontological resources from the management of back country byways would be similar to Alternative A, except additional back country byways would be considered. Byways could provide opportunities for enhancing visitor knowledge and understanding of the significant natural and paleontological resources located in their vicinity, which could improve appreciation and protection. Back country byways could increase the presence of visitors, which could increase the potential for surface disturbing activities and damage to paleontological resources through unauthorized removal of fossils or intentional acts of vandalism.

Impacts to paleontological resources from the management of livestock grazing would be similar to those described under Alternative A. The management could provide greater protections to paleontological resources by reducing surface disturbance. The management could reduce the opportunities for livestock to make direct physical contact to fossil sites which could prevent damage or destruction to the resource.

Impacts to paleontological resources from the management of recreation in the planning area would be similar to Alternative A, except that the entire planning area would not be managed as an Extensive Recreation Management Area (ERMA) and SRMAs would not be retained. Under Alternative B, more emphasis would be placed on management for resource values instead of recreation values. The management could provide greater protections to paleontological resources by reducing the extent of surface disturbing activities and human presence. Reducing surface disturbing activities could prevent direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation.

Impacts to paleontological resources from OHV management would be similar to Alternative A, except more acres are limited to existing roads and trails. There are no acres designated to “existing roads and trails” for Alternative B. Managing OHV use to minimize adverse effects on resources would provide similar protections to the unknown and known paleontological resources in the planning area by reducing the extent of human-caused surface disturbing activities and human presence when compared to Alternative A.

Management to protect congressionally designated and/or eligible trails, and NHTs would have similar impacts on paleontological resources as Alternative A, except there are greater protective measures proposed such as larger buffers and specific closures and restrictions. Reducing surface disturbing activities would lower the potential for direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation at paleontological sites.

Management of WSAs and WSRs would impact paleontological resources similar to those described under Alternative A, but there would be a slightly greater emphasis on protecting wilderness setting and viewshed values over recreational values. The management would reduce the potential for surface disturbing activity which could protect known and unknown paleontological resources.

Impacts to paleontological resources from the management of ACECs would be very similar to those described under Alternative A; however, 1,605,660 acres of lands would be managed as ACECs under Alternative B,

1,319,210 more acres compared to Alternative A. Additional stipulations to individual ACECs could reduce surface disturbance, which could provide greater protections to known and unknown paleontological resources by reducing the potential for direct resource damage or destruction, indirect impacts from erosional forces, and setting degradation. Reduced human presence could decrease the potential for vandalism and unauthorized removal of fossils.

## 4.13.2 Alternative C

Impacts to paleontological resources from soil and geologic resources, water, geothermal, geophysical, forests and woodlands, grassland and shrubland, areas of tribal importance (sacred, spiritual, respected, and traditional cultural settings, properties, or resources), lands and realty, and renewable energy management would be the same as those described under Alternative A. Under this alternative, impacts on paleontological resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts to paleontological resources from managing lands with wilderness characteristics to not protect those characteristics would result in fewer protections for soil health and stability and could allow more surface disturbing activities and occupancy. This could potentially increase impacts on known and unknown paleontological resources through direct resource damage or destruction, amplification of erosional forces, degradation of setting, or vandalism.

Compared to Alternative A, opportunities to explore, locate, and develop fluid minerals in the planning area would increase under Alternative C. Mineral development activities could cause direct destruction or damage to known and unknown paleontological resources through surface disturbances and occupancies, adverse impacts on soil and rock stability that amplify detrimental erosion. Surface disturbing activities or surface occupancy could cause degradation of the setting in which the paleontological resources exist. Humans could cause unintentional damage to both known and unknown resources through their surface disturbing activities; as well as intentional destruction through vandalism, including the unauthorized removal of fossils.

Under Alternative C, approximately 4,919 oil, gas, and CBNG wells would be developed within the planning area (Map 2-8), which would be 146 more wells as compared to Alternative A. There would be 33,840 acres of initial surface disturbance and 9,758 acres of long-term disturbance from oil and gas development; 1,009 more acres of initial surface disturbance and 292 more acres of long-term disturbance compared with Alternative A. Approximately 225,782 acres in the planning area would be closed to fluid mineral exploration, leasing, and development; 314,239 fewer acres than under Alternative A. Under Alternative C, 15,542 acres would be managed with NSO stipulations, which is 143,069 fewer acres than under Alternative A. Applying CSU stipulations to 215,890 acres, 505,242 fewer than Alternative A and applying TLS to 1,355,485 acres, 47,258 fewer acres than Alternative A, would overall offer fewer protections than Alternative A due to total fewer acres of land protected by closures or lease stipulations.

Impacts from locatable, leasable, and saleable mineral exploration, development, and operations on paleontological resources would be similar to those under Alternative A. Under Alternative C, 234,961 acres would be withdrawn from locatable mineral entry, 321,597 fewer than Alternative A, and 226,421 acres would be closed to mineral material sales and disposals, 607,298 fewer than Alternative A (Map 2-3, 2-13, and 2-18). Approximately 226,219 acres would be closed to coal leasing, 407,617 fewer acres than Alternative A, 225,965 acres would be closed to oil shale leasing, 501,840 fewer acres than Alternative A, and 225,965 acres would be closed to trona leasing, 228,629 fewer acres than Alternative A. The management would provide fewer protections to paleontological resources by increasing the potential extent of surface disturbing activities and human presence in the planning area compared to Alternative A.

Impacts to paleontological resources from wildland fire management would be similar to Alternative A. Additional management such as wildfire suppression, heavy equipment usage, and prohibitions for using chemical fire suppression agents in special designations and rock art sites would not be as restrictive. The management under Alternative C could decrease the potential for direct fire damage to known paleontological resources in those areas, but if suppression activities involved significant land surface disturbances, direct and indirect impacts to paleontological resources could occur.

Impacts to paleontological resources from the management of riparian, wetland, fish, wildlife, and special status species habitats would be similar to those described under Alternative A, except that smaller surface disturbing and/or surface use distance buffer zones would be applied around developments and operations. The management could increase the potential for direct destruction or damage to known and unknown paleontological resources through surface disturbance, impacts to soil/rock stability, and amplified detrimental erosion when compared to Alternative A.

Impacts from the management of cultural resources would have similar impacts on paleontological resources as those described under Alternative A, except that only imposing minimum required restrictions would provide fewer protections against surface occupancy or disturbances that could lead to detrimental erosion, paleontological site or fossil damage, or degradation of scenic views.

Paleontological resource management actions under this alternative are the same as Alternative A. Impacts from this management are the same as those described under Alternative A.

Impacts to paleontological resources from the management of visual resources would be the same as those described under Alternative A. Under Alternative C, approximately 226,629 acres would be classified as VRM Class I (912 more than Alternative A), 607,899 acres VRM Class II (25,227 more than Alternative A), 395,683 acres VRM Class III (219,809 fewer than Alternative A), and 2,374,706 acres as VRM Class IV (194,283 more than Alternative A).

Impacts to paleontological resources from the management of ROWs is similar to Alternative A, except 225,784 acres would be designated as exclusion for ROWs, 200,925 fewer than Alternative A, and 31,018 acres would be designated as ROW avoidance areas, 705,120 fewer than Alternative A. This management could increase the potential for direct destruction or damage to known and unknown paleontological resources through surface disturbance, impacts to soil or rock stability, and amplified erosion.

Impacts to paleontological resources from the management of back country byways could reduce public visitation areas along these routes, which could decrease the potential for damage to paleontological resources through unauthorized removal of fossils or intentional acts of vandalism.

Impacts to paleontological resources from the management of livestock grazing would be similar to Alternative A. Properly managed grazing could serve as a vegetation treatment that supports soil and vegetation health. Livestock grazing that is not managed correctly could result in excessive vegetation loss and surface disturbances that degrade soil health and stability and amplify erosion which could inflict direct damage or destruction to paleontological resources. Reducing total authorized use for grazing could reduce damage to paleontological resources from livestock; however, because management is continuing actual livestock use, it is likely that few changes would occur beyond those described under Alternative A.

Impacts to paleontological resources from recreation management would be similar to those described under Alternative A. Under this alternative, the management could open areas in the planning area to more surface disturbing activities from recreation use and allow greater access by humans into areas with fewer recreational management controls. The management could increase the potential for direct damage to known and unknown paleontological resources through surface disturbance, impacts to soil and rock stability, and amplified detrimental

erosion. Increased presence of humans could result in fossil vandalism or removal. However, the discovery of previously unknown paleontological resources would be more likely to occur in areas where surface disturbing activities and human presence are high.

Impacts to paleontological resources from OHV management would be similar to those described under Alternative A, except that this alternative would allow approximately 500 more acres of open areas within 13,332 acres compared to Alternative A. Under Alternative C, 225,537 acres would be closed to vehicle use, and 3,365,374 acres would be limited to designated roads and trails.

Impacts to paleontological resources from the management to protect congressionally designated and/or eligible trails, and NHTs would be similar to those described under Alternative A. Alternative C would include less restrictive management for surface disturbing activities which could increase human-caused surface disturbing activities and human presence compared to Alternative A.

Impacts to paleontological resources from the management of WSAs and WSRs would result in fewer protections to fossil resources within the 9.7 miles of rivers described under Alternative A.

Under this alternative, no ACECs would be retained and the management would provide fewer protections to known and unknown paleontological resources in these areas by increasing the potential for surface disturbing activity and occupancy.

### 4.13.3 Alternative D

Impacts to paleontological resources from water resource management, geophysical exploration, fire and fuels, forests and woodlands, vegetation, riparian and wetland, fish and wildlife, special status species, cultural resource, back country byways, and livestock grazing management would be the same as those described under Alternative A. Under this alternative, impacts on paleontological resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts to paleontological resources from the management of soil and geologic resources would be similar to those discussed under Alternative A, except there would be more measures to protect soil properties and maintain or improve soil health. Management for soil health, cover, and stability could provide greater protections to unknown and known paleontological resources by reducing the potential of erosion.

Under Alternative D, lands with wilderness characteristics would be managed for multiple use or existing management, which could allow for more surface disturbing activities compared to Alternative B.

Under Alternative D, approximately 4,737 oil, gas, and CBNG wells would be developed within the planning area (Map 2-9), which would be 36 fewer wells as compared to Alternative A. There would be 32,587 acres of initial surface disturbance and 9,397 acres of long-term disturbance from oil and gas development; 244 fewer acres of initial surface disturbance and 69 fewer acres of long-term disturbance compared with Alternative A. Under this alternative, 768,989 acres in the planning area are closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development, 228,968 more acres than Alternative A. Under Alternative D, 2,172 acres would be managed with NSO stipulations, which is 156,439 fewer acres than Alternative A. Applying CSU stipulations on 1,238,899 acres, 517,767 acres more than Alternative A, and TLS on 1,911,167 acres, 70,200 acres more than Alternative A, would offer similar protections as Alternative A.

Impacts from locatable, leasable, and saleable mineral exploration, development, and operations would be similar to those described under Alternative A, although smaller areas of land are closed to solid mineral leasing. Approximately 482,272 acres would be proposed for withdrawal from locatable mineral entry, 74,286 fewer acres

than Alternative A, and 362,009 acres would be closed to mineral material sales and disposals, 471,710 fewer acres than Alternative A. Under Alternative D, 610,342 acres would be closed to coal leasing, 124,378 more acres than Alternative A, 1,557,520 acres would be closed to oil shale leasing, 829,715 more acres than Alternative A, and 389,552 acres would be closed to trona leasing, 34,081 fewer acres than Alternative A.

Under Alternative D, management of paleontological resources would have impacts similar to Alternative A; however, additional management for the Farson Fossil Fish Beds could protect the paleontological site.

Impacts to paleontological resources from VRM would be similar to Alternative A except that more acres would be managed as VRM Class II and III, and fewer acres as Class IV compared to Alternative A. Approximately 225,703 acres would be classified as VRM Class I, which is nearly the same as Alternative A, 1,178,718 acres as VRM Class II, 596,046 acres more than Alternative A, 738,311 acres as VRM Class III, 122,819 acres more than Alternative A, and 1,455,234 acres as VRM Class IV 725,189 acres less than Alternative A. More acreage managed under VRM Class II would provide greater protections to known and unknown paleontological resources by minimizing surface disturbing activities, human presence, and occupancy which could lower the potential for direct damage or destruction, indirect impacts from erosional forces, and setting degradation.

Impacts on paleontological resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be reduced. The number of acres designated as ROW exclusion areas would be increased to 286,289 acres, 140,420 fewer acres compared with Alternative A (Table 2-10 in Appendix V, Map 2-29), which could reduce the area in which ROW development activities are prohibited. This could increase potential impacts on paleontological resources from ROW development from surface disturbing activities.

Impacts to paleontological resources from recreation management would be similar to those described under Alternative A. SRMA management could reduce surface disturbance in some areas and protect paleontological resources from damage or exposure from excavation or erosion. However, increased use in the remaining SRMAs could lead to vegetation loss or erosion, which could expose unknown paleontological resources, but could put the resources at risk from vandalism, damage, or illegal collection.

Impacts to paleontological resources from OHV management would be similar to those described under Alternative A. The same number of acres would be managed as OHV open and closed areas (12,831 and 225,537 acres). Impacts from 3,367,576 acres managed as open to designated roads and trails would be the same as those described under Alternative A although all roads would be managed as ‘designated’ rather than for ‘existing’ roads and trails.

Impacts to paleontological resources from the management to protect congressionally designated and/or eligible trails, and NHTs would be similar to those described under Alternative A. Under Alternative D, additional protective measures proposed such as larger buffer zones and specific closures and restrictions would be applied to these areas to a greater degree when compared to Alternative A.

Impacts to paleontological resources from the management of WSAs would be very similar to those described under Alternative B. Slightly fewer protections for surface disturbance within these areas could increase the potential for direct or indirect damage or destruction to paleontological resources as compared to Alternative B.

Impacts to paleontological resources from the management of WSRs would be the same as those described under Alternative B.

Impacts to paleontological resources from the management of ACECs and special management areas would be similar to those described under Alternative A. Under Alternative D, 246,634 acres would be managed as ACECs,

39,816 fewer acres compared to Alternative A. Approximately 312,980 acres would be special management areas, 267,030 fewer acres compared to Alternative A.

## 4.13.4 Proposed RMP

Under the Proposed RMP, impacts on paleontological resources from management of water resources, geophysical exploration, fire and fuels, forests and woodlands, vegetation, riparian and wetland, fish and wildlife, special status species, cultural resources, back country byways, and livestock grazing resources would be the same as those described under Alternative A. Under this alternative, impacts on paleontological resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for air quality, invasive species and pest management, and public safety.

Impacts on paleontological resources from the management of soil and geologic resources would be similar to those discussed under Alternative A, except that, similar to Alternatives B and D, there would be more measures to protect soil properties and maintain or improve soil health. Management for soil health, cover, and stability could provide greater protections to unknown and known paleontological resources by reducing the potential of erosion.

Management actions related to the preservation of land with wilderness characteristics under the Proposed RMP are mostly the same as those described under Alternative D. No areas under the Proposed RMP would have management specifically for the preservation of land with wilderness characteristics, allowing for a greater potential for ground-disturbing activities, which could affect paleontological resources.

Impacts from locatable, leasable, and saleable mineral exploration, development, and operations would be similar to those described under Alternative A, except that generally more of the planning area would be closed/withdrawn or managed for surface use restrictions. Under the Proposed RMP 1,076,039 acres in the planning area are closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (536,018 more acres than Alternative A); 900,204 acres are proposed for withdrawal from locatable mineral entry (343,646 more acres than Alternative A); and 884,906 acres are closed to saleable mineral development and/or disposals (51,187 more acres than Alternative A) (Tables 2-3, 2-4, and 2-8 in Appendix V). Activities related to shaling and other methods of resource extraction could affect paleontological resources through potential soil exposure to wind and water erosion and subsequent soil degradation and loss. The impact would be mitigated by following Wyoming State Protocol, BLM guidelines, and the Paleontological Resources Preservation Act wherever applicable, which could add additional costs to project development and management. Under the Proposed RMP, more acres would be closed to fluid minerals (99% increase compared with Alternative A) and many areas that remain open would be subject to NSO and CSU stipulations, which would avoid or reduce potential impacts on paleontological resources from surface-disturbing activities compared to Alternative A. However, compared to Alternative B, management of mineral resources under the Proposed RMP would allow substantially more development, which would increase the potential for effects to known and unknown paleontological resources compared to that alternative.

The Proposed RMP includes paleontological resources management actions from Alternative D that are generally less restrictive to surface-disturbing activities. Specifically, Adobe Town and Desolation Flats/Point will not be designated as a new management area and no new restrictions would be placed on mineral extraction from the surroundings. The Farson Fossil Fish Beds (199 acres) would be designated as a ROW avoidance area and surface-disturbing activities could occur on a case-by-case basis. Such activities would proceed following BLM mitigation policies in addition to the Paleontological Resources Preservation Act.

Impacts on paleontological resources from VRM would be similar to Alternative A except that more acres would be managed as VRM Class II, and fewer acres would be managed as VRM Class IV. Approximately 1,301,004 acres would be classified as VRM Class II (718,332 more acres than Alternative A) and 1,929,258 acres as VRM Class IV (251,165 fewer acres than Alternative A). More acreage managed under VRM Class II and less acreage

under VRM Class IV would provide greater protections to paleontological resources by minimizing surface-disturbing activities, human presence, and occupancy, which could lower the potential for direct damage or destruction and indirect impacts from erosional forces. Impacts on paleontological resources from VRM under the Proposed RMP would be most similar to those described under Alternative D.

Impacts on paleontological resources resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except that acres of ROW exclusion and ROW avoidance areas would be increased to 921,059 acres (116% increase compared with Alternative A) and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). ROW exclusion and (to a lesser extent) avoidance areas could reduce potential impacts on paleontological resources from ROW development.

Impacts on paleontological resources from recreation management would be similar to those described under Alternative A, except that, similar to Alternative D, the Proposed RMP would have fewer potential impacts from recreation on cultural resources. Under the Proposed RMP, 159,505 fewer acres are designated as SRMAs compared with Alternative A. SRMA management could reduce surface disturbance in some areas and protect paleontological resources from damage or exposure from excavation or erosion. However, increased use in the remaining SRMAs could lead to vegetation loss or erosion, which could expose unknown paleontological resources and could put the resources at risk from vandalism, damage, or illegal collection.

Impacts on paleontological resources from managing special designation areas would be similar to those described under Alternative A, except they would occur over more acres and thereby offer greater protections to important historic, cultural, wildlife, special status plants, and scenic values in these areas as determined by the management area direction. The acres designated in 12 ACECs under the Proposed RMP would increase to 935,135 acres (226% increase compared with 10 ACECs under Alternative A). Overall management of special designation areas under the Proposed RMP would limit surface disturbance to a greater extent than Alternative A by restricting the types of activities allowed in the areas and thus decreasing the potential for impacts on paleontological resources. The Proposed RMP would have greater protection of paleontological resources through management of ACECs compared to Alternatives A, C, and D but less than Alternative B.

NHT management and beneficial impacts on paleontological resources due to restrictions on surface-disturbing activities would be the same as under Alternative D, but substantially less than under Alternative B. Projects involving ground disturbance may affect known and unknown paleontological resources throughout the planning area.

Impacts on paleontological resources from WSA management would be the same as those described under Alternative D.

Impacts on paleontological resources from the management of WSRs would be the same as those described under Alternative B.

# 4.14 LANDS WITH WILDERNESS CHARACTERISTICS

## 4.14.1 Alternative B

Under Alternative B, nearly all of the resource uses that could potentially impact lands with wilderness characteristics would be prohibited in these areas, which would eliminate nearly all of the impacts described under Alternative A. All nine areas determined to contain wilderness characteristics would be managed as closed to the leasing, exploration and/or development of fluid and solid minerals, unavailable for saleable mineral disposal, withdrawn from locatable mineral entry, and managed as ROW exclusion areas. In addition, motorized travel

would be allowed only to access state and private land parcels. The impacts resulting from managing livestock grazing and developing range improvements would be the same as those described under Alternative A.

## 4.14.2 Alternative C

Impacts on lands with wilderness characteristics resulting from the leasing and development of mineral resources would be similar to those presented under Alternative A, except the impacts would be increased because the nine areas with wilderness characteristics would not be managed to protect those characteristics. Implementing fewer restrictions on mineral development designed to protect sensitive natural and cultural resources would decrease the areas in which mineral development is limited or prohibited. Under this alternative, 0.2 acres would be closed to fluid mineral leasing (99.9% decrease compared with Alternative A) (Table 2-4 in Appendix V, Map 2-8), 0.2 acres would be closed to coal leasing (99.9% decrease compared with Alternative A), 0.2 acres closed to oil shale (a 99.9% decrease compared with Alternative A) (Table 2-7 in Appendix V, Map 2-13), 0.2 acres would be proposed for withdrawal from locatable mineral development (99.9% decrease compared with Alternative A) (Table 2-3 in Appendix V, Map 2-3), 2,835 acres would be closed to saleable mineral development (95% decrease compared with Alternative A) (Table 2-8 in Appendix V, Map 2-18) and 2,835 acres would be managed as NSO areas (82% decrease compared with Alternative A) across the nine areas with wilderness characteristics. This decrease in such restrictions could result in increased mineral development activity in these areas and thereby an increase in related surface disturbances, visual intrusions, noise, and the presence of people, vehicles and facilities, all of which would further degrade naturalness and reduce opportunities for solitude and primitive recreation compared with Alternative A.

Impacts on lands with wilderness characteristics resulting from managing the lands and realty program would be similar to those presented under Alternative A, except the impacts would be increased. Implementing fewer restrictions on the development of ROWs to protect natural and cultural resources would decrease the areas in which ROW development is limited or prohibited. Under this alternative, 0.2 acres would be managed as ROW exclusion areas (99.9% decrease compared with Alternative A) and 39,762 acres would be managed as ROW avoidance areas (32% decrease compared with Alternative A) across the nine areas with wilderness characteristics (Table 2-10 in Appendix V, Map 2-28). This decrease in areas in which ROWs are excluded or avoided could increase the development of ROWs, which would increase related surface disturbances, visual intrusions, noise, and the presence of people, vehicles, and facilities. This, in turn, would further degrade naturalness and reduce opportunities for solitude and primitive recreation compared with Alternative A.

Impacts on lands with wilderness characteristics resulting from managing OHV use would be similar to those presented under Alternative A, except the impacts would be slightly reduced. The portions of the lands with wilderness characteristics that are managed as limited to existing roads and trails under Alternative A (35,483 acres) would be re-designated as limited to designated roads and trails. Because specific routes in these areas would be closed as part of the comprehensive trails and travel management planning process, the number of roads on which OHVs and other vehicles could travel would be reduced. This, in turn, would decrease the presence of vehicles and related impacts on opportunities for solitude and primitive recreation.

Impacts resulting from managing livestock grazing and developing range improvements would be the same as those described under Alternative A.

## 4.14.3 Alternative D

Impacts on lands with wilderness characteristics resulting from the leasing and development of saleable minerals and coal resources would be similar to those presented under Alternative A, except the impacts would be increased. Under this alternative, across the nine areas with wilderness characteristics, 23,603 acres would be closed to saleable mineral development (57% decrease compared with Alternative A) (Table 2-8 in Appendix V, Map 2-19) and 0.22 acres would be closed to the development of coal resources (99.9% decrease compared with

Alternative A) (Table 2-7 in Appendix V, Map 2-14). This decrease in such restrictions could result in increased mineral development activity in these areas and thereby an increase in related surface disturbances, visual intrusions, noise, and the presence of people, vehicles and facilities, which would degrade naturalness and opportunities for solitude compared with Alternative A.

Impacts on lands with wilderness characteristics resulting from the leasing and development of fluid minerals and oil shale resources would be similar to those presented under Alternative A, except the impacts would be decreased. Implementing greater restrictions on the development of fluid minerals and oil shale resources designed to protect sensitive natural and cultural resources would increase the areas in which mineral development is limited or prohibited. Under this alternative, across the nine areas with wilderness characteristics, 20,779 acres would be closed to fluid mineral leasing (17% increase compared with Alternative A) (Table 2-3 in Appendix V, Map 2-9) and 20,783 acres would be closed to oil shale leasing (75% increase compared with Alternative A) (Table 2-7 in Appendix V, Map 2-14). This increase in such restrictions could result in decreased mineral development activity in these areas and thereby a decrease in related surface disturbances, visual intrusions, noise, and the presence of people, vehicles and facilities, all of which would help to maintain naturalness and opportunities for solitude and primitive recreation compared with Alternative A.

Impacts on lands with wilderness characteristics resulting from managing the lands and realty program would be similar to those presented under Alternative A, except the impacts would be increased. Implementing fewer restrictions on the development of ROWs to protect natural and cultural resources would decrease the areas in which ROW development is prohibited. Under this alternative, across the nine areas with wilderness characteristics, 0.22 acres would be managed as ROW exclusion areas (99.9% decrease compared with Alternative A). This decrease in areas in which ROWs are excluded could increase the development of ROWs, which would increase related surface disturbances, visual intrusions, noise, and the presence of people, vehicles, and facilities, which would degrade naturalness and opportunities for solitude compared with Alternative A.

Impacts on lands with wilderness characteristics resulting from managing OHV use would be similar to those presented under Alternative A, except the impacts would be slightly reduced. The portions of the lands with wilderness characteristics that are managed as limited to existing roads and trails under Alternative A (35,483 acres) would be re-designated as limited to designated roads and trails. Because specific routes in these areas would be closed as part of the comprehensive trails and travel management planning process, the number of roads on which OHVs and other vehicles could travel would be reduced. This, in turn, would decrease the presence of vehicles and related impacts on opportunities for solitude and primitive recreation.

Impacts resulting from managing livestock grazing and developing range improvements would be the same as those described under Alternative A.

## 4.14.4 Proposed RMP

Impacts on lands with wilderness characteristics resulting from proposed management actions would be similar to those presented under Alternative A and Alternative D, except the impacts would be reduced. Impacts from managing lands with wilderness characteristics would be increased compared to Alternative B, because that alternative would manage lands with wilderness characteristics to preserve those characteristics as well as pursue acquisitions of state parcels to expand lands with wilderness characteristics. Like under Alternatives A and D, lands with wilderness characteristics would not be managed for wilderness characteristic values, and instead would follow other management direction including more emphasis on multiple uses. Under the Proposed RMP alternative, five lands with wilderness characteristics are within ACECs proposed for the Red Desert area and would be managed as part of the South Wind River ACEC and expanded Steamboat Mountain ACEC, two lands with wilderness characteristics are within the Little Mountain ACEC and would be managed for that ACEC's values, and two lands with wilderness characteristics are within the Salt Wells area and would be managed for multiple-use consistent with that area. These overlapping special designations would limit development activities

in these areas, reducing potential effects on their wilderness characteristics to a greater degree than if these designations were not in place. The lands with wilderness characteristics that now occur in the Salt Wells area may experience potential impacts from multiple uses but management in this area is designed to reduce adverse impacts. The Proposed RMP would not pursue land acquisitions in support of preserving wilderness characteristics.

Impacts on lands with wilderness characteristics resulting from the leasing and development of saleable minerals and coal resources would be similar to those presented under Alternative D, except the impacts would be decreased with more areas closed to salable minerals (Appendix V; Table 2-7).

# 4.15 VISUAL RESOURCES

## 4.15.1 Alternative B

Impacts to visual resources from the management of air quality, geophysical exploration, and Greater sage-grouse would be the same as those described under Alternative A.

Impacts to visual resources from the management of physical resources would be similar to those described under Alternative A. Additional protective management to prevent surface disturbance or development activities, along with mitigation and revegetation requirements, would provide even greater protection to visual resources as compared to Alternative A. The management would prevent or reduce possible changes to scenic elements of the landscape, preserve scenic quality, and reduce changes in line, form, color, and texture of the visual environment.

Impacts to visual resources from locatable mineral development would be similar to those described under Alternative A. Under Alternative B, 1,993,908 acres would be pursued for withdrawal from locatable mineral entry, 1,437,350 more acres compared to Alternative A. Approximately 2,186,218 acres would be closed to geothermal leasing, 1,646,197 more acres when compared to Alternative A. These lands could retain their scenic integrity, have fewer changes to scenic elements of the landscape, and prevent changes in line, form, color, and texture of the visual environment.

Impacts to visual resources from oil and gas development would be similar to those described under Alternative A. Alternative B would apply greater restrictions on development through closures and NSO stipulations, which would retain their scenic integrity, have fewer changes to scenic elements of the landscape, and prevent changes in line, form, color, and texture of the visual environment (Table 4-19 in Chapter 4). Under Alternative B, 2,186,218 acres would be closed to fluid mineral leasing, 1,646,197 more acres than under Alternative A, and 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. Impacts to visual resources from applying CSU and TLS would be similar to those described under Alternative A, but with 99,674 acres with CSU stipulations and 713,837 acres with TLS.

Impacts to visual resources from solid leasable and saleable minerals would be similar to those described under Alternative A. Under Alternative B, 3,535,546 acres would be closed to coal, 2,122,282 acres would be closed to oil shale, and 2,119,920 acres would be closed to trona leasing and development. The larger areas of closures would protect the visual resources to a greater degree than Alternative A by retaining the natural character and preventing disruption of the line, form, color, and texture of the landscape.

Impacts to visual resources from the management of biological resources would be similar to those described under Alternative A. Additional protective management to prevent surface disturbance or development activities, along with mitigation and revegetation requirements would provide even greater protection to visual resources as compared to Alternative A.

Impacts to visual resources from cultural, recreation, and special designation management would be similar to those described under Alternative A. Additional protective management to prevent surface disturbance or development activities, along with management to protect scenic resources would provide even greater protection to visual resources as compared to Alternative A.

Under Alternative B, the impacts from the management of visual resources would be the same as those described under Alternative A for VRM Class I (225,785 acres, 68 acres more than Alternative A), and VRM Class III (666,522 acres, 51,030 acres more than Alternative A) (Table 4-20 in Chapter 4). Under Alternative B, 2,148,902 acres would be managed as VRM Class II, 1,566,230 more acres than Alternative A. Under Alternative B, 563,754 acres would be managed as VRM Class IV, 1,616,669 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class IV would be the same as those described under Alternative A, but fewer acres would be subjected to the level of surface disturbance allowed within the VRM Class IV classification.

Impacts to visual resources from ROW management would be the same as those described under Alternative A; however, under Alternative B, 2,480,876 acres would be managed as ROW exclusion areas. The management would retain the visual character and naturalness of these areas within 2,130,936 more acres as compared to Alternative A. Fewer acres would be managed as avoidance areas, 133,903 acres under Alternative B, 602,235 fewer acres than Alternative A (Table 2-10 in Appendix V).

Impacts to visual resources from OHV management would be the same as those described under Alternative A. Under Alternative B, there would be no category called “limited to existing roads and trails.” While the routes would be moved under the “limited to designated roads and trails” for a total of 3,367,576 acres impacts to visual resources would be similar to those described under both categories under Alternative A.

## 4.15.2 Alternative C

Impacts to visual resources from the management of physical resources, with the exception of lands with wilderness characteristics, would be the same as those described under Alternative A. Impacts to visual resources from geophysical exploration, biological resources, cultural and recreation management would be the same as those described under Alternative A.

Under Alternative C, not managing lands with wilderness characteristics for their wilderness characteristics could allow for surface disturbance and would remove the VRM Class II management for these areas. This removal of protections could result in soil and vegetation disturbance, construction of roads and pipelines, and the presence of permanent structures that would create noticeable visual contrast to the landscape.

Impacts to visual resources from locatable mineral development would be similar to those described under Alternative A. Under Alternative C, 234,961 acres would be pursued for withdrawal from locatable mineral entry, 321,597 fewer acres compared to Alternative A. Visual resources could be affected by increased mining activity from surface disturbance, mining equipment, or increased vegetation loss near mining claims.

Impacts to visual resources from geothermal leasing would be the same those described under Alternative A. Approximately 225,782 acres of the planning area would be closed to geothermal leasing, 314,239 fewer acres compared to Alternative A.

Impacts to visual resources from oil and gas development would be similar to those described under Alternative A. Closing 225,782 acres to fluid mineral leasing would close 314,239 fewer acres than under Alternative A. Under Alternative C, 15,542 acres would be managed with NSO stipulations, which is 143,069 fewer acres than Alternative A. CSU stipulations would be applied to 215,890 acres, 505,242 fewer acres compared to Alternative A, and TLSs would be applied to 1,355,485 acres, 485,482 less acres compared to Alternative A.

Impacts to visual resources from solid leasable and saleable minerals would be similar to those described under Alternative A. Under Alternative C, 226,219 acres would be closed to coal leasing, 259,745 fewer acres compared to Alternative A, 225,965 acres would be closed to oil shale leasing, 501,840 fewer acres than Alternative A, 225,965 acres would be closed to trona leasing, 226,219 fewer acres than Alternative A, and 226,421 acres of lands would be closed to saleable mineral development, 607,298 fewer acres compared to Alternative A. Areas of lands available to mineral development could result in damage to the natural landscape and disruption of the line, form, color, and texture of the visual environment.

Management for VRM Class I would be 226,629 acres, 912 acres more than Alternative A; VRM Class II would be 607,899 acres, 25,227 acres more than Alternative A; VRM Class III would be 395,683 acres, 219,809 fewer acres than Alternative A; and VRM Class IV, 2,374,706 acres, 194,283 acres more than Alternative A. There would be slightly more acres protected by VRM Classes I and II, but nearly 195,000 more acres subjected to surface disturbing and disruptive activities allowed under VRM Class IV compared to Alternative A.

Impacts to visual resources from ROW management would be similar to those described under Alternative A. Under Alternative C, 225,784 acres would be managed as ROW exclusion areas, 200,925 fewer acres compared to Alternative A. Under Alternative C, 31,018 acres would be managed as ROW avoidance areas, 705,120 fewer acres compared to Alternative A.

Impacts to visual resources from OHV use would be the same as those described under Alternative B.

## 4.15.3 Alternative D

Impacts to visual resources from air quality, and geophysical exploration would be the same as those described under Alternative A.

Impacts to visual resources from the management of physical resources would be similar to those described under Alternative A. Additional protective management to prevent surface disturbance or development activities, along with mitigation and revegetation requirements would provide even greater protection to visual resources compared to Alternative A.

Impacts to visual resources from locatable mineral development would be similar to those described under Alternative A. Under Alternative D, 482,272 acres would be pursued for withdrawal from locatable mineral entry, 556,558 fewer acres compared to Alternative A. These areas could allow less surface disturbance as compared to Alternative A, and visual resources could experience less degradation from vegetation loss, soil disturbance, and disruption of the line, form, color, and texture of the landscape. Approximately 768,989 acres would be closed to geothermal leasing, 228,968 more acres compared to Alternative A.

Impacts to visual resources from oil and gas development would be similar to those described under Alternative A. Alternative D would apply fewer restrictions on development through closures and NSO stipulations (Table 2-4 in Appendix V). Under Alternative D, 768,989 acres would be closed to mineral leasing, 228,968 more acres than under Alternative A. Impacts to visual resources from applying NSO, CSU, and TLS would be similar to those described under Alternative A, but with 2,172 acres of NSO, 1,238,899 acres of CSU and 1,911,167 acres of TLS. The smaller areas of NSO (156,439 fewer acres than Alternative A), and larger areas of CSU (517,767 more acres than Alternative A), and TLS (70,200 more acres than Alternative A) could allow for more surface disturbing or disruptive activities compared to Alternative A.

Impacts to visual resources from solid leasable and saleable minerals would be similar to those described under Alternative A. Under Alternative D, 610,342 acres would be closed to coal leasing, 124,378 more acres than Alternative A, 1,557,520 acres would be closed to oil shale leasing, 829,715 more acres than Alternative A, and 389,552 acres would be closed to trona leasing, 34,081 fewer acres compared to Alternative A. Approximately

362,009 acres of lands would be closed to saleable mineral development, 471,710 fewer acres compared to Alternative A.

Impacts to visual resources from the management of biological resources would be similar to those described under Alternative A. Additional protective management to prevent surface disturbance or development activities, along with mitigation and revegetation requirements would provide even greater protection to visual resources as compared to Alternative A.

Impacts to visual resources from cultural, recreation, and special designation management would be similar to those described under Alternative A. Under Alternative A, 246,634 acres would be ACECs, 39,816 fewer acres than Alternative A, 312,980 acres would be management areas and other features, 267,030 fewer acres than Alternative A, and 135,549 acres would be SRMAs, 162,561 fewer acres as compared to Alternative A. Additional protective management to prevent surface disturbance or development activities, along with management to protect scenic resources would provide even greater protection to visual resources as compared to Alternative A. The management would preserve the scenic settings and retain the visual resources within the protected areas and the surrounding landscapes.

Under Alternative D, the impacts from the management of visual resources would be the same as those described under Alternative A for VRM Class I (225,703 acres, 14 fewer acres than Alternative A). Impacts overall would be similar to Alternative A for VRM, although larger areas of land would be managed as VRM Class II, 1,178,718 acres, 596,046 more acres than Alternative A. Under Alternative D, 738,311 acres would be managed as VRM Class III, 122,819 more acres than Alternative A, and 1,455,234 acres would be managed as VRM Class IV, 725,189 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class IV would be the same as those described under Alternative A, but fewer acres would be subjected to the level of surface disturbance allowed within the VRM Class IV classification.

Impacts to visual resources from ROW management would be the same as those described under Alternative A; however, under Alternative D, 286,289 acres would be managed as ROW exclusion areas. The management would retain the visual character and naturalness of these areas within 140,420 fewer acres as compared to Alternative A. More acres would be managed as avoidance areas, 1,388,618 acres under Alternative D, 652,480 more acres than Alternative A.

Impacts to visual resources from OHV management would be the same as those described under Alternative A. Under Alternative D, there would be no category called “limited to existing roads and trails.” While the routes would be moved under the “limited to designated roads and trails” for a total of 3,367,576 acres impacts to visual resources would be similar to those described under both categories under Alternative A.

## 4.15.4 Proposed RMP

Impacts on visual resources from air quality, geology, geophysical exploration, vegetation communities, wild horses, wildland fire ecology, cultural and paleontological resources, livestock grazing, forest and woodland management, lands and realty, WSAs, WSRs, and public safety would be the same as those described under Alternative A.

Impacts on visual resources from the management of physical resources would be similar to those described under Alternative A. Consistent with Alternative D, additional protective management to prevent surface disturbance or development activities, along with mitigation and revegetation requirements, would provide greater protection to visual resources compared to Alternative A. The management would prevent or reduce possible changes to scenic elements of the landscape, preserve scenic quality, and reduce changes in line, form, color, and texture of the visual environment.

Impacts on visual resources from locatable mineral development would be similar to those described under Alternative A. Under the Proposed RMP, 900,204 acres would be pursued for withdrawal from locatable mineral entry, 343,646 more acres compared to Alternative A. Approximately 1,076,039 acres would be closed to geothermal leasing, 536,018 more acres when compared to Alternative A. Compared to Alternative A, a larger area is proposed for withdrawal from locatable mineral entry and similar acreages of closures for solid mineral leasing and mineral materials disposals. Additional withdrawals would reduce visual impacts associated with soil and vegetation disturbance, construction of roads and infrastructure, and the presence of permanent structures associated with mineral development by retaining their scenic integrity and resulting in fewer changes to scenic elements of the landscape and changes in line, form, color, and texture of the visual environment. Compared to Alternative B, substantially smaller closures for solid mineral leasing and mineral materials disposals under the Proposed RMP would increase visual impacts compared to that alternative.

Impacts on visual resources from fluid leasable mineral development would be similar to those described under Alternative A. The Proposed RMP would apply additional restrictions on development through closures (1,076,039 acres) and NSO stipulations (215,437 acres) compared to Alternative A (536,018 and 56,826 additional acres, respectively). Additionally, the Proposed RMP would have fewer restrictions for fluid leasable mineral development compared to Alternative B, resulting in increased potential for impacts on visual resources compared to that alternative.

Impacts on visual resources from solid leasable and saleable minerals would be similar to those described under Alternative A, except over a larger area. Under the Proposed RMP, 766,880 acres would be closed to coal, 1,115,490 acres would be closed to oil shale, and 569,554 acres would be closed to trona leasing and development. Increased areas of closures would protect the visual resources to a greater degree than Alternative A by retaining the natural character and preventing disruption of the line, form, color, and texture of the landscape.

Impacts on visual resources from the management of wildlife and fisheries resources would be similar to those described under Alternative A. Consistent with Alternative D, additional protective management to prevent surface disturbance or development activities, along with mitigation and revegetation requirements, would provide greater protection to visual resources as compared to Alternative A.

Impacts on visual resources from the management of lands with wilderness characteristics would be similar to those under Alternative D. Under the Proposed RMP, lands with wilderness characteristics would not be managed specifically to preserve wilderness characteristic values and instead follow other management direction including more emphasis on multiple uses in areas not covered by overlapping special designations. The Proposed RMP would not pursue land acquisitions of state parcels to expand lands with wilderness characteristics. Under the Proposed RMP, lands with wilderness characteristics would not be closed to mineral or other development, which would increase the potential occurrence of surface-disturbing activities and visual impacts.

Impacts on visual resources from management of land for recreation would be similar to those described under Alternative A. Application of a 0.25-mile NHT corridor and restrictions on ROW and mineral development in the corridor would reduce introduction of visual contrast in the area, although to a substantially lesser degree than the 5-mile NHT corridor applied under Alternative B. In addition, historic roads and trails that are eligible, but not congressionally designated, will be managed according to their historic context and the setting will be analyzed out to 1 mile on either side; this would allow for protections and eliminate conflicts with corridor development. The visual resource impacts from these exceptions are the same as those described for Alternative D.

Impacts on visual resources from special designation management would be similar to those described under Alternative A, but to a greater degree due to a larger area of special designations and management areas under the Proposed RMP. Additional protective management from these special designations and management areas would prevent surface disturbance or development activities, along with management to protect scenic resources that would provide more protection to visual resources as compared to Alternative A, but less than under Alternative

B, which includes substantially more special designations. The management would preserve the scenic settings and retain the visual resources within the protected areas and the surrounding landscapes. The Proposed RMP does, however, include fewer SRMAs than under Alternative A, potentially decreasing attention on managing recreation in these areas and reducing the incidental protection of visual resources.

Impacts from VRM management overall would be similar to those described for Alternative A, although larger areas of land would be managed as VRM Class II. Under the Proposed RMP, impacts from the management of visual resources would be the same as those described under Alternative A for VRM Class I. Management and impacts from VRM Class II would be similar to those described for Alternative D (1,301,004 acres, or 122,286 acres more than Alternative D and 718,332 acres more than Alternative A). Compared to Alternative B, the Proposed RMP manages a substantially smaller area in VRM Class I and II categories, in large part because the Proposed RMP does not include a 15-mile-wide VRM Class II designation for NHTs and surrounding landscapes. Impacts related to managing the majority of the lands in the planning area under the VRM Class III (149,413 acres) and Class IV (1,929,258) designations would be similar to those described under Alternative A, with a slightly smaller area managed to permit the level of surface disturbance allowed within the VRM Class III and IV classifications.

Impacts on visual resources from ROW management would be the same as those described under Alternative A; however, under the Proposed RMP, 921,059 acres would be managed as ROW exclusion areas. Impacts on visual resources from the ROW and renewable energy management would result from the creation of new contrasting visual elements from linear ROWs and renewable energy facilities. Generally, the Proposed RMP ROW restrictions and anticipated level of anticipated impacts fall between those anticipated under Alternatives B and D. The creation of new special management areas, along with buffer zones around sensitive resources, would help limit adverse visual impacts of renewable energy and ROW development.

Impacts on visual resources from OHV management would be the same as those described under Alternative A. Under the Proposed RMP, there would be no category called “limited to existing roads and trails.” While the routes would be moved under the “limited to designated roads and trails” for a total of 3,367,576 acres, impacts on visual resources would be similar to those described under both categories under Alternative A.

# 4.16 LIVESTOCK GRAZING MANAGEMENT

## 4.16.1 Alternative B

Impacts resulting from management of the air quality, fire, cultural resources, recreation, vegetation, and hazardous materials management would be the same as the Alternative A.

Watershed management actions would be more restrictive under this alternative. Increasing the avoidance area around riparian areas and floodplains to 1,320 feet (¼ mile) for fire suppression chemicals and 2,640 feet (½ mile) for salt blocks and other nutritional supplements would provide more protection to forage resources from surface disturbing activities but would allow for less flexibility in constructing water developments and range improvements.

Managing lands with wilderness characteristics specifically to preserve those characteristics would prevent surface disturbance and protect forage resources in these areas, as management actions would include closing these lands to fluid minerals, mineral material sales/disposal, all solid mineral leasing, mineral location, and designating exclusion areas for all new ROWs. These lands would also be managed for VRM Class II, and the state parcels and inholdings within these areas would be pursued for acquisition. However, allowing motorized travel for access to state/private parcels within these areas could result in localized surface disturbance and resulting forage removal and degradation.

Under this alternative, a greater number of acres of land is closed to disturbance than have restrictions compared to Alternatives A. Management actions that restrict surface disturbing activities include continuing to manage livestock grazing areas with site-specific seasonal restrictions, implementing CSU stipulations (99,674 acres), closing areas to oil and gas leasing (2,186,218 acres), and implementing NSO stipulations (813,354 acres). Under this alternative, 2,581,741 acres would be closed to mineral material sales and 1,993,908 acres could be pursued for withdrawal from locatable mineral entry. Restrictions on mineral development and other surface disturbing activities would help prevent the removal of forage resources.

Reclamation of surface disturbances would help mitigate long-term forage loss related to vegetation removal. Effects from most mineral development would be temporary, as the vegetation conditions on most sites ultimately would be reclaimed. Forage resources could be reduced if development outpaces reclamation and replacement of forage.

Impacts from fire and fuels management would be similar to those under Alternative A, except that more acres of wildfire would be allowed to burn for resource benefit. This would result in additional areas requiring rest from livestock grazing to allow recovery of vegetation following a wildfire, which would reduce the flexibility of livestock operations in the short term.

Management actions associated with the fire management program would likely reduce the use of fire suppression, which would reduce the related effects on vegetation communities and the potential for high-intensity fires that lead to extensive forage loss compared to Alternative A.

Forest management actions would result in a mature forest and would reduce forage production and quality for livestock use. Lack of commercial timber harvest would reduce disturbance from roads and maintain vegetation for forage, although distribution of livestock and vehicle access to check, doctor, and move livestock could be reduced compared to Alternative A.

Vegetation would be managed to meet desired plant community (DPC) objectives, which would require livestock operations to incur additional management complexity. Examples include adjustments in season or duration of use, rest from livestock use, additional herding, offsite water developments, and pasture fencing. In most cases, there would be improved forage production that would result in increased weight gains or other benefits to the livestock operation.

Effects from wildlife habitat management on livestock grazing would be similar to Alternative A. More restrictive actions to improve wildlife habitat could benefit livestock grazing.

The increase in VRM Class II acres (to 2,148,902 total acres) would affect construction activities from other resource programs, which would potentially result in a reduction in forage lost as compared with Alternative A.

Under Alternative B, 3,583,798 acres would be available for livestock grazing and 8,576 acres would be unavailable for grazing use. Livestock grazing management actions under this alternative generally would restrict operators by allowing for decreased flexibility in managing livestock. More restrictive measures for range improvements, water developments, and salt and mineral placement would limit protections to forage and surface water resources. Impacts from livestock management actions would be similar to those in Alternative A, except that livestock operations would incur additional management complexity to meet DPC objectives. Construction of range improvements would be considered for the purpose of improving rangeland diversity, condition, and sustainability. This could affect the location, type, and number of range improvements, which could decrease livestock distribution and rangeland use.

Impacts from lands and realty management would be similar to those identified in Alternative A, except that lands would not be considered for disposal. Thus, the loss of AUMs for livestock grazing from the possible disposal of lands would not occur.

The effects on livestock grazing resulting from the development of ROWs would be similar to those identified for Alternative A, except 2,480,876 acres would be excluded from ROW development (481% increase), which would decrease the extent of related forage removal, but could decrease opportunities for access to remote locations within allotments.

Impacts on livestock grazing from managing OHV use would be similar to those presented under Alternative A, except the area currently designated as "limited to existing roads and trails" (2,398,839 acres) would be changed to "limited to designated roads and trails" (3,367,576 acres) and all routes would be designated as open, closed or limited.

Impacts to livestock grazing from special designations/management areas would be similar to those described under Alternative A. Additional protective management for these areas could help reduce forage loss from development or surface disturbing activities.

Actions related to special management areas under this alternative could have a greater effect on livestock grazing. Management actions associated with expansion of existing ACECs and historic settings, and designation of new ACECs, and WSAs would increase the amount of area subject to surface disturbance restrictions and limitations and thus would increase protections to forage resources. However, such expansions and designations could limit construction of water developments and range improvements, potentially affecting livestock operations.

## 4.16.2 Alternative C

Impacts resulting from management of air quality, soils, forests and woodlands, wildlife, cultural resources, VRM, recreation, vegetation, and hazardous materials would be the same as Alternative A.

Watershed management actions would be less restrictive under this alternative. Reducing the avoidance area around riparian areas and floodplains to 250 feet would provide less protection to forage resources from surface disturbing activities but would allow for greater flexibility in constructing water developments and range improvements. In addition, the removal of riparian exclosures would increase available forage for livestock.

All lands identified as having wilderness characteristics would not be managed to protect those characteristics, which would allow for surface disturbing activities in the areas and potential loss of forage resources.

Impacts to livestock grazing would be similar to those described under Alternative A; however, Alternative C provides the greatest opportunity for mineral development and production. This could result in greater surface disturbance that could affect livestock grazing by removing available forage. Management actions that restrict surface disturbing activities include closing areas to oil and gas leasing (225,782 acres) and managing areas with NSO (15,542 acres) and CSU (215,890 acres) stipulations. In addition, 226,421 acres would be closed to mineral material sales and 234,961 acres would be pursued for withdrawal from locatable mineral entry.

Vegetation communities would be managed to prevent the spread of noxious weeds and achieve DPC objectives that emphasize wildlife habitat, livestock grazing, watershed, and biodiversity values which would support forage resources.

Impacts from wildland fire and fuels management would be the same as Alternative A, except for the increased emphasis on fire suppression and decreased use of natural fire. Suppression activities would result in smaller size of fires, which would reduce forage loss, damaged fences, changes in grazing management, and the need for

temporary fencing (to allow for recovery of plants). This would reduce management costs and maintain the flexibility of livestock operations. Reduced use of natural fire in the long term could result in decreased forage production and/or availability for livestock use.

Under Alternative C, reducing total authorized use to highest level of billed use over the last 10 years could reduce the future availability for ranchers to use public lands for livestock grazing. Compared to Alternative A, reducing use to 160,387 AUMs would not allow an increase of actual use and could affect grazing operations by reducing lands available for grazing use. The management could affect livestock operators' ability to increase heard size and subsequent financial growth. However, livestock operators would be able to continue to run livestock on public land in a similar fashion to what they have been doing over the past 10 years. Less restrictive measures for range improvements, water developments, and salt and mineral placement could create short-term benefits for livestock operators but could limit protections to forage and surface water resources. New fence construction would decrease management complexity and indirectly help increase pasture and forage productivity with improved distribution of livestock. This alternative would allow the largest amount of land available for grazing (3,592,374 acres), with no areas managed as unavailable for grazing use.

The effects on livestock grazing resulting from the development of ROWs would be similar to those identified for Alternative A. The difference is that 225,784 acres would be excluded from ROW development (47% decrease), thereby increasing the extent of potential forage removal, but also increasing opportunities for access to remote locations within allotments.

If Congress released the 13 existing WSAs from wilderness consideration, surface uses in the WSAs would be limited or prohibited similarly to the current situation and impacts on livestock grazing would not change.

Under this alternative, no areas would be designated as ACECs and special management areas would not be retained. Removing the restrictions would increase the amount of area subject to surface disturbance restrictions and limitations. Increased mineral development and a reduction in SD/MAs would increase the short-term displacement of livestock and decrease available forage.

## 4.16.3 Alternative D

Impacts on livestock grazing resulting from implementing management actions for air quality, water resources, vegetation, fish and wildlife, special status species, cultural resources, paleontological resources, and recreation would be the same as those presented under Alternative A.

Impacts on livestock grazing from implementing soil management actions would be similar to those identified under Alternative A. Areas with limited reclamation potential soils would be designated avoidance areas for surface disturbing activities, which would reduce the extent of surface disturbing activities in these areas and thereby reduce the intensity and extent of forage removal and degradation.

Under Alternative D, lands with wilderness characteristics would be managed for multiple use, which could help to reduce development activities within these areas, but to a far lesser degree than under Alternative A. These areas would not be closed to mineral development as they would be under Alternative B, which would increase the potential occurrence of surface disturbing activities. Such activities could result in removal and damage to vegetation resources, which would reduce available forage for livestock.

Impacts on livestock grazing from managing fluid mineral leasing and development would be similar to those discussed under Alternative A, except stipulations that prohibit fluid mineral leasing or prohibit surface occupancy would be applied to a smaller area. Under Alternative D, 768,989 acres would be closed to fluid mineral leasing (42% increase compared with Alternative A) and 2,172 acres would be managed with NSO stipulations (99% decrease compared with Alternative A) (Table 2-4 in Appendix V, Map 2-9). These stipulations would eliminate

surface disturbance from fluid mineral development and thereby eliminate related impacts to forage resources in these areas; however, such impacts would occur across a smaller area compared with Alternative A. Similarly, areas pursued for withdrawal from locatable mineral development would be decreased to 482,272 acres (13% decrease compared with Alternative A), which would eliminate related impacts to forage resources across a smaller area compared with Alternative A.

Impacts on livestock grazing from saleable mineral development activities would be similar to those presented under Alternative A, except where mineral development is prohibited, which would be decreased to 362,009 acres (57% decrease compared with Alternative A) (Table 2-8 in Appendix V, Map 2-19). This would increase the area in which vegetation resources could be impacted by saleable mineral development activities, which would increase the potential for vegetation removal and thereby decrease forage levels for livestock.

Impacts on livestock grazing from managing fire and fuels and forests and woodlands would be the same as those presented under Alternative B.

Impacts on livestock grazing resulting from implementing VRM actions would be similar to those presented under Alternative A, except the number of acres designated as VRM Class II would be increased to 1,178,718 acres (102% increase compared with Alternative A) (Table 2-9 in Appendix V, Map 2-24), which could lead to decreased degradation and removal of forage.

Under Alternative D, 3,589,859 acres would be available for livestock grazing, with 2,515 managed as unavailable for grazing use, about 1,545 fewer acres available for grazing compared to Alternative A. Impacts on livestock grazing resulting from implementing livestock grazing management actions would be similar to those presented under Alternative A, except additional restrictions on the placement of salt and mineral supplements could reduce the level of flexibility regarding livestock grazing management. This would restrict the ability for livestock operators to provide salt and mineral supplements to livestock in these areas of the planning area and thereby reduce overall management flexibility. NEPA analysis considering rangeland suitability prior to authorizing livestock conversions could affect AUM availability for operators depending on the type of livestock being converted.

Impacts on livestock resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except the extent of the impacts would be increased. The number of acres designated as ROW exclusion areas would be decreased to 286,289 acres (33% decrease compared with Alternative A) (Table 2-10 in Appendix V, Map 2-29), which would decrease the area in which ROW development activities are prohibited. This would eliminate impacts on forage resources from ROW development in these areas; however, such impacts would occur across a smaller area compared with Alternative A.

Impacts on livestock grazing from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a smaller area and thereby offer fewer protections to important historic, cultural, wildlife, and scenic values in these areas. This, in turn, could increase surface disturbing activities and related impacts on forage resources. The acres designated as ACECs would be decreased to 246,634 acres (13.9% decrease compared with Alternative A). Management within a portion of the Little Mountain ACEC would require a grazing plan prior to approval of an annual grazing authorization. This management could lead to a delay when livestock use could occur once an operator identifies a desire to graze the within area (previously known as the Red Creek Portion of the Greater Red Creek ACEC, 55,880 acres).

## 4.16.4 Proposed RMP

Impacts on livestock grazing resulting from implementing management actions for air quality, water resources, vegetation, fish and wildlife, special status species, cultural resources, paleontological resources, and recreation would be the same as those presented in Alternative A, which are common to all alternatives.

Under the Proposed RMP, 3,596,265 acres would be available for livestock grazing, with 2,114 acres managed as unavailable for grazing use, which represents 12,467 more acres available for grazing compared to Alternative B and 6,406 more acres available for livestock grazing compared to Alternative D. Consistent with Alternatives A and D, livestock grazing would be authorized at current active use AUM levels. The seasonal big game closures applied under Alternative B are not incorporated into the Proposed RMP, removing effects to livestock permittees from these seasonal closures. Considering rangeland suitability prior to authorizing livestock conversions would affect AUM availability at the same levels as under Alternative D.

Management of vegetation and forage resources within rangeland allotments would be the same as those described under Alternative A.

Impacts on livestock grazing management flexibility from restrictions on placement of salt and mineral supplements around riparian areas and aquatic resources would be the same as those presented under Alternative A, and less than under the larger and more restrictive buffers applied under Alternatives B and D. Management of range improvements would be the same as described under Alternative B; therefore, impacts associated with range improvements would be the same as those described under that alternative.

Under the Proposed RMP, impacts on livestock grazing from implementing soil management actions would be less than those described in Alternatives C and D, but more than Alternatives A and B. The Proposed RMP is a combination of Alternatives B and D and would have similar impacts as previously described under these alternatives. The Proposed RMP opens more areas for surface disturbance activities than management under Alternative B, which may increase disturbance of vegetation resources and forage for livestock. However, implementation of BMPs should avoid or reduce soil impacts at the project level.

Under the Proposed RMP, lands with wilderness characteristics would be managed for multiple use as described in Alternative D. Unlike under Alternative B but similar to Alternative C, these areas would not be closed to mineral development specifically to preserve wilderness characteristics, which increases the potential occurrence of surface-disturbing activities, which could reduce available forage for livestock. Overlapping special designations and management areas would reduce the potential for surface-disturbing activities in some lands with wilderness characteristics.

Impacts on livestock grazing from managing fluid mineral leasing and development would be similar to those described for Alternatives A and D and greater than those described under Alternative B. Under the Proposed RMP, 1,076,039 acres would be closed to fluid mineral leasing, and 215,437 acres would be managed with NSO stipulations. These stipulations would eliminate surface disturbance from fluid mineral development and thereby eliminate related impacts to forage resources in these areas to a greater extent than the management actions described under Alternatives A and D, but less than those described under Alternative B. Similarly, areas closed to salable mineral materials disposals and proposed for withdrawal from locatable mineral entry (884,906 acres and 900,204 acres, respectively) would be greater than those described under Alternatives A and D, but less than those described under Alternative B. These closures would reduce effects on livestock grazing similar to closures for fluid minerals.

Impacts on livestock grazing from managing fire and fuels and forests and woodlands would be similar to those described under Alternative A. However, consistent with Alternatives B and D, greater restrictions on the use of fire suppression agents could make it more difficult to suppress and control wildfires. This could potentially lead to increased loss of forage resources in the event of wildfires.

Impacts on livestock grazing resulting from implementing VRM actions would be similar to those described under Alternatives A and D. Under the Proposed RMP, approximately 1,301,004 acres would be classified as VRM Class II (718,332 more acres than Alternative A) and 1,929,258 acres would be classified as VRM Class IV (251,165 fewer acres than Alternative A). This change in VRM classification compared to other alternatives could

allow a greater degree of degradation and removal of forage resources, particularly in VRM Class IV areas; however, it would improve opportunities to install range improvement projects that would benefit livestock grazing operations.

Impacts on livestock resulting from implementing lands and realty actions would be similar to those presented under Alternatives A and D, except that acres of ROW exclusion and ROW avoidance areas would be increased to 921,059 acres (116% increase compared with Alternative A) and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). The Proposed RMP would decrease where ROW development could damage forage resources when compared to Alternatives A and D, but increase the potential degradation of forage resources when compared to Alternative B.

Impacts on livestock grazing from managing special designation areas would be similar to those presented under Alternative A, except more land would be managed as ACECs as opposed to Management Areas and other designations. The acres designated in 12 ACECs under the Proposed RMP would increase to 935,135 acres (226% increase compared with 10 ACECs under Alternative A). Overall management of special designation areas under the Proposed RMP would limit surface disturbance to a greater extent than Alternative A by restricting the types of activities allowed in the areas and thereby decreasing the potential for impacts on paleontological resources. The typically more resource-protective management applied to ACECs would reduce impacts on livestock by further limiting the ability to disturb forage resources compared to current management. Opportunities for livestock grazing would also be improved compared to Alternative B, because livestock grazing would not be prohibited in the portions of the Greater Red Creek ACEC that prohibit grazing under that alternative.

# 4.17 RECREATION

## 4.17.1 Alternative B

Impacts to recreation resources from the management of air quality, geology, geophysical exploration, wildland fire, grassland and shrubland communities, riparian and wetland resources, lands and realty, back country byways, WSAs, WSRs, and public safety would be the same as those described under Alternative A.

Impacts to recreation resources from the management of soil and water would be similar those described under Alternative A. Alternative B could reduce noise, traffic and visual impacts of mineral development which could affect recreation and the qualities of solitude, vistas, and naturalness.

Management of lands with wilderness characteristics would prevent or reduce noise, traffic, and visual impacts of mineral or other development and support the natural character of the landscape. However, management for wilderness characteristics would prevent recreational opportunities related to developed sites, well-marked trails, motorized or mechanical use, and modern facilities. For recreationists seeking primitive or back country experiences, the management would enhance recreational values related to solitude and undisturbed natural environments. Areas with less surface disturbance or disruptive activities could provide more natural conditions to support recreational opportunities such as backpacking, hiking, wildlife viewing, horseback riding, and fishing.

Impacts to recreation resources from locatable mineral development would be similar to those described under Alternative A. Under Alternative B, 1,993,908 acres would be pursued for withdrawal from locatable mineral entry, 1,437,350 more acres compared to Alternative A.

Impacts to recreation resources from geothermal leasing would be the same as those described under Alternative A. Under Alternative B, 2,186,218 acres would be closed to geothermal leasing, 1,646,197 more acres than under Alternative A, supporting opportunities for solitude and primitive/unconfined recreation.

Impacts to recreation resources from mineral development would be similar to those described under Alternative A. Alternative B would apply greater restrictions on development through closures and NSO stipulations, which would prevent or reduce noise, traffic, and visual impacts of mineral or other development and support the natural character of the landscape (Table 4-24 in Chapter 4).

Under Alternative B, 2,186,218 acres would be closed to oil and gas leasing, 1,646,197 more acres than under Alternative A, and 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. Impacts to recreation would be similar to those described under Alternative A for lands closed to oil and gas leasing and with NSO stipulations, but the management would apply to more acres of land. Under Alternative B, 23,703 acres surrounding campgrounds would be closed to oil and gas leasing, 23,521 more acres than Alternative A, and 12,935 acres would be within lands with NSO stipulations, 12,681 more acres compared to Alternative A.

Impacts to recreation resources from applying CSU and TLS would be similar to those described under Alternative A, but within 99,674 acres of CSU stipulations and 713,837 acres of TLS. These smaller areas of CSU and TLS could allow for some surface disturbing or disruptive activities, but the overall management would have fewer impacts from development activities, more quiet and solitude, and improved opportunities for hunting or viewing large game.

Impacts to recreation resources from solid leasable and saleable minerals would be similar to those described under Alternative A. Under Alternative B, 3,535,546 acres would be closed to coal, 2,122,282 acres would be closed to oil shale, and 2,119,920 acres would be closed to trona leasing and development. The protections to lands closed to solid mineral development would be applied to 2,741,709 fewer acres of land closed to coal, 1,394,477 more acres of lands closed to oil shale, and 1,665,326 more acres closed to trona compared to Alternative A. Approximately 2,581,741 acres of lands would be closed to saleable mineral development, 1,748,022 more acres compared to Alternative A. Recreation taking place in these areas would have fewer impacts from development activities, more quiet and solitude, and improved opportunities for hunting or viewing large game. Approximately 29,545 acres of lands surrounding campgrounds would be closed to saleable mineral development. This management would enhance the quality of recreation experiences, especially for recreationists seeking the opportunity for solitude and primitive/unconfined recreation.

Impacts to recreation resources from forest and woodland management would be similar to those described under Alternative A. Use of more natural processes and prohibiting clear cutting could prevent disruptions in the forest canopy, and would enhance the quality of recreation experiences, especially for recreationists seeking the opportunity for solitude and primitive or unconfined recreation. Forest areas would be less disturbed and could provide habitat for larger numbers of wildlife for viewing or big game for hunting.

Impacts to recreation resources from the management of wildlife, big game, raptors, fisheries and special status species would be similar to those described under Alternative A. Additional management to protect and improve wildlife habitat could support or improve recreational opportunities such as hunting, wildlife viewing, horseback riding, and fishing within the Planning Area.

Impacts to recreation resources from the management of cultural resources would be similar to those described under Alternative A. Additional protective management for reducing the impacts of mineral development and surface disturbing or disruptive activities would reduce visual impacts to recreation opportunities and enhance user experience where solitude and a pristine setting are part of the expectation.

Impacts to recreation from the management of visual resources would be the same as those described under Alternative A for VRM Class I (225,785 acres, 68 acres more than Alternative A), and VRM Class III (666,522 acres, 51,030 acres more than Alternative A). Under Alternative B, 2,148,902 acres would be managed as VRM Class II, 1,566,230 more acres than Alternative A. The management for VRM Class II would retain the character

of the landscape, but it could reduce recreational opportunities related to developed recreation sites, overall, it would enhance recreational values related to solitude and natural environments. Under Alternative B, 563,754 acres would be managed as VRM Class IV, 1,616,669 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class IV would be the same as those described under Alternative A, but fewer acres would be subjected to the level of surface disturbance allowed within the VRM Class IV classification.

Impacts to recreation from ROW management would be the same as those described under Alternative A; however, under Alternative B, 2,480,876 acres would be managed as ROW exclusion areas. The management would retain the visual character and naturalness of these areas within 2,130,936 more acres as compared to Alternative A. Fewer acres would be managed as avoidance areas, 133,903 acres under Alternative B, 602,235 fewer acres than Alternative A. This could reduce the extent of disturbed areas, which would reduce visual impacts to recreation opportunities and enhance user experience where solitude and a pristine setting are part of the expectation.

Impacts to recreation from livestock grazing management would be the same as those described under Alternative A. In addition, application of monitoring, greater protection of riparian areas and springs, and range improvements would be implemented to enhance wildlife, watershed, and riparian values. These management actions would improve the condition of these natural resources and consequently would enhance recreational values through improved water quality for water-based recreational activities and improved wildlife habitat for hunting, fishing, and wildlife observation.

Under Alternative B, management for recreation would have impacts similar to those described under Alternative A. Not retaining SRMAs may provide recreationists with a wide range of recreational opportunities, but user conflicts could occur if uses were not specified. Management within the two units of the Wind River Front SRMA (257,680 acres) would still apply, although the SRMA would not be designated. Impacts from the management would be the same as those described under Alternative A.

Impacts to recreation from OHV management would be the same as those described under Alternative A. Under Alternative B, there would be no category called “limited to existing roads and trails.” While the routes would be moved under the “limited to designated roads and trails” for a total of 3,367,576 acres (the sum of limited to designated and limited to existing acres in Alternative A) impacts to recreation would be similar to those described under both categories under Alternative A. Additional management to prohibit and limit OHV would limit vehicular recreation in some areas compared to Alternative A. Recreation taking place in these areas would have fewer impacts from development activities, more quiet and solitude, and improved opportunities for hunting game species or viewing wildlife.

Impacts to recreation from the management of National Historic Trails, the Dry Sandy Swales trail segment, the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road would be the same as those described under Alternative A. In addition, greater restrictions on mineral development, surface disturbing activities, and construction of towers and other structures would reduce noise, traffic, and visual impacts of mineral or other development to a greater degree than under Alternative A.

Under Alternative B, the Red Desert Watershed Management Area would be divided into a management area (164,143 acres) and the remainder added to the Steamboat Mountain ACEC (176,881 acres). Impacts to recreation from the management of the areas would be similar to those described in Alternative A, but additional management could further reduce noise, traffic, and visual impacts of mineral or other development to a greater degree than under Alternative A.

The Greater Red Creek ACEC would be expanded from 131,600 acres in Alternative A to 468,170 acres, and the Monument Valley ACEC (69,960 acres), the Pinnacles ACEC (1,340 acres), and Big Sandy Openings ACEC (2,020 acres) would be designated in Alternative B. The management for the ACEC expansion and designations

would prevent or reduce noise, traffic, and visual impacts of mineral or other development and support the natural character of the landscape. If surface disturbing activities were permitted, the quality of recreation experiences could be diminished where roads, trails, dispersed camping, and other types of recreation occur nearby.

Impacts to recreation from retaining the designation of the Cedar Canyon ACEC (2,540 acres) would be similar to Alternative A, but additional management would allow for fewer surface disturbing or disruptive activities under Alternative B.

Impacts to recreation from retaining the designation of the Greater Sand Dunes ACEC (including the Crookston Ranch and Boar's Tusk Portions, 39,290 acres) and the Oregon Buttes ACEC would be the same as those described under Alternative A.

Impacts to recreation from the management of the Eastern Portion of the Greater Sand Dunes ACEC and the Natural Corrals ACEC (1,110 acres) would be similar to those described under Alternative A. Some additional protective measures to prevent or reduce surface disturbance could prevent or reduce noise, traffic, and visual impacts of mineral or other development and support the natural character of the landscape.

Impacts to recreation from the expansion and additional management of the Special Status Plant Species ACEC (3,610 acres), the Steamboat Mountain ACEC (439,330 acres), Pine Spring ACEC (6,480 acres) and White Mountain Petroglyphs ACEC (20 acres) would be similar to those described under Alternative A, but would apply over larger areas of land.

Designating and managing the South Wind River ACEC (374,710 acres) for watershed, sensitive big game habitat, wildlife, and other values could provide a range of recreational opportunities from back country to front country. The management would support recreational opportunities such as hunting, wildlife viewing, and fishing.

Management of National Historic Landmarks could enhance recreational experiences and provide benefits by protecting resources and educating the public about unique historic resources.

## 4.17.2 Alternative C

Impacts to recreation resources from the management of air quality, soils, geology, water, geophysical, wildland fire ecology, forest and woodland management, grassland and shrubland communities, riparian and wetland resources, wildlife, big game, raptors, fisheries, special status species, cultural resources, lands and realty management, land disposals, land acquisitions, renewable energy, and public safety would be the same as those described under Alternative A.

Under Alternative C, not managing lands with wilderness characteristics for their wilderness characteristics could allow for motorized use of the lands, providing greater access to the lands for recreational activities. However, greater access could reduce the natural conditions of the untrammeled, undeveloped landscape. Although more developed recreation activities could be allowed, the areas would continue to provide natural conditions to support recreational opportunities such as backpacking, hiking, wildlife viewing, and fishing.

Impacts to recreation resources from locatable mineral development would be greater than those described under Alternative A. Under Alternative C, 234,961 acres would be proposed for withdrawal from mineral location, 321,597 fewer acres compared to Alternative A. Recreation could be affected by increased mining activity from surface disturbance, mining equipment, or increased vehicle use near mining claims.

Impacts to recreation resources from geothermal leasing would be the same those described under Alternative A. Approximately 225,782 acres of the planning area would be closed to geothermal leasing, 314,239 fewer acres compared to Alternative A.

Impacts to recreation resources from mineral development would be similar to those described under Alternative A. Closing 225,782 acres to fluid mineral leasing would close 314,239 fewer acres than under Alternative A. Under Alternative C, 15,542 acres would be managed with NSO stipulations, which is 143,069 fewer acres than Alternative A. There would be no campgrounds within closed or NSO areas, 132 acres of campgrounds would be within CSU stipulations, TLSs would be applied to 326 acres of campgrounds. CSU stipulations would be applied to 215,890 acres, 505,242 fewer acres compared to Alternative A, and TLSs would be applied to 1,355,485 acres, 485,482 less acres compared to Alternative A.

Impacts to recreation resources from solid leasable and saleable minerals would be similar to those described under Alternative A. Under Alternative C, 226,219 acres of lands would be closed to coal leasing, 259,745 fewer acres compared to Alternative A. 225,965 acres would be closed to oil shale leasing, 501,840 fewer acres than Alternative A, 225,965 acres would be closed to trona leasing, 228,629 fewer acres than Alternative A, and 226,421 acres of lands would be closed to saleable mineral development, 607,298 fewer acres compared to Alternative A. Development could reduce populations of game species, which could reduce hunting success levels and the overall quality of hunting experiences, as well as wildlife viewing opportunities. Approximately 436 acres surrounding campgrounds would be open to saleable mineral development.

Impacts to recreation from the management of visual resources would be very similar to those described under Alternative A. Management for VRM Class I would be 226,629 acres, 912 acres more than Alternative A; VRM Class II would be 607,899 acres, 25,229 acres more than Alternative A; VRM Class III would be 395,683 acres, 255,807 fewer acres than Alternative A; and VRM Class IV, 2,374,706 acres, 194,283 acres more than Alternative A. There would be slightly more acres protected by VRM Classes I and II, but nearly 195,000 more acres subjected to surface disturbing and disruptive activities allowed under VRM Class IV compared to Alternative A.

Impacts to recreation from ROW management would be similar to those described under Alternative A. Under Alternative C, 225,784 acres would be managed as ROW exclusion areas, 200,925 fewer acres compared to Alternative A. Under Alternative C, 31,018 acres would be managed as ROW avoidance areas, 705,120 fewer acres compared to Alternative A. Surface disturbing and disruptive activities could diminish the visual quality and experience of primitive or back country landscapes to a greater degree than under Alternative A.

Not retaining back country byways could remove some recreation opportunities associated with sightseeing, driving for pleasure, and viewing wild horses.

Impacts to recreation from livestock grazing would be similar to those described under Alternative A, however, allowing livestock grazing in and around campgrounds could reduce the presence of vegetation, cause physical damage to facilities, increase visible waste, and possibly cause recreationists to relocate if large numbers of livestock were present. Some people enjoy seeing livestock when visiting the West, and the presence or evidence of livestock could contribute to the enjoyment of their experience.

Management for recreation would have impacts similar to those described under Alternative A. Under Alternative C, emphasis of management for recreation would provide greater opportunities for recreational experiences compared to Alternative A. Managing the Oregon Buttes, Honeycomb Buttes, Steamboat Mountain, Leucite Hills, Pine Mountain, and Cedar Canyon for their continuing value for recreational opportunities could give recreationists greater opportunities for motorized use, camping, developed recreation sites, or group activities.

Designating the Little Mountain Area as a SRMA and retaining the Green River and Wind River Front SRMAs for both motorized and non-motorized use would provide a range of recreational opportunities for those seeking a more natural back country experience, and those desiring a more developed or vehicle-oriented recreation experience. OHV use in these areas could increase conflicts between users and displace some non-motorized users and degrade the back country recreation experience in these areas.

Designating Red Creek Area as a SRMA and retaining the Continental Divide Snowmobile Trail SRMA would support a back country experience for recreationists. The management would prevent or reduce noise, OHV use, developed recreation sites, and support the natural character of the landscape. For recreationists seeking back country experiences, the management would enhance recreational values related to natural, unmodified environments. Areas with less development would provide more natural conditions to support recreational opportunities such as hunting, mountain biking, horseback riding, wildlife viewing, and fishing.

Retaining the Killpecker Sand Dunes SRMA designation for motorized recreationists to engage in OHV, motorbike, and other motorized hill climbing activities would provide motorized recreation enthusiasts open areas for riding and developed campgrounds, picnic areas, and other facilities for day use and overnight stays. The area would not have as much natural character as the outlying landscape, and the noise, dust, and exhaust may deter recreationists seeking more natural, undisturbed settings from the SRMA. The area could also have less natural character for recreationists in the 15,149 acre portion of the SRMA open to mineral material sales.

Retaining the Oregon and Mormon Pioneer National Historic Trails SRMA designation for historic tourism enhances recreational experiences and provides benefits by protecting historic resources. Impacts to recreation from managing the Green River, Sweetwater River, Big Sandy River, and the Bitter Creek segment between the towns of Rock Springs and Green River and the Wind River Front SRMA (257,680 acres) would be the same as Alternative A.

Impacts to recreation from managing OHV areas would be the same as those described under Alternative B.

Impacts to recreation from the management of National Historic Trails, the Dry Sandy Swales trail segment, the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road or other historic roads and trails would be the same as those described under Alternative A.

If Congress does not designate WSAs as wilderness, and the areas were managed for multiple use, the opportunity for solitude and primitive or unconfined recreation would likely be affected by an increase in recreation opportunities that current management restricts, such as motorized recreation. An increase in recreation could also increase the potential for conflicts among users and displace some users thereby diminishing the recreation experience in these areas.

WSAs would be managed for multiple use and WSRs, ACECs, and other management areas would not be retained under Alternative C. This management would result in fewer restrictions to surface disturbance or disruptive activities as compared to Alternative A. Where mineral leasing and surface disturbing activities were permitted, the quality of recreation experiences could be diminished where roads, trails, dispersed camping, and other types of recreation occur nearby. Wells and associated facilities, pipelines, increased road traffic, noise, dust, and the visual impact of facilities in otherwise natural areas could reduce the quality of recreation experiences and possibly displace recreationists to other areas. Visual impacts of surface disturbance reduce the naturalness of back country recreation and reduce opportunities for solitude.

Impacts to recreation from the management of National Historic Landmarks would be the same as those described under Alternative B.

## 4.17.3 Alternative D

Impacts to recreation resources from the management of air quality, geology, geophysical exploration, wildland fire ecology, forest and woodland management, grassland and shrubland communities and riparian and wetland resources, lands and realty, WSAs, WSRs, and public safety would be the same as those described under Alternative A.

Impacts to recreation resources from the management of soil and water would be similar those described under Alternative A. Alternative D could reduce noise, traffic and visual impacts of mineral development which could affect recreation and the qualities of solitude, vistas, and naturalness. The management could result in some reduction of allowable motorized recreation activities; however, more restrictions to surface disturbance could support the quality of undeveloped, primitive recreation experiences.

Impacts to recreation from the management of lands with wilderness characteristics for multiple use or existing management could provide a range of recreational experiences in these areas. Management would allow multiple use in some areas, and other areas would continue other management, such as for ACECs. Where lands would be managed to conserve the landscape within ACECs or other protected areas, impacts would be the same as those described under Alternative B. Impacts to recreation from management for multiple use within lands with wilderness characteristics would be the same as those described under Alternative C.

Impacts to recreation resources from locatable mineral entry would be similar to those described under Alternative A. Under Alternative D, 482,272 acres would be pursued for withdrawal from locatable mineral entry, 74,286 fewer acres compared to Alternative A. Alternative D would pursue fewer acres of land from locatable mineral withdrawal, which could increase noise, traffic, and visual impacts of mineral or other development and support the natural character of the landscape.

Impacts to recreation resources from geothermal leasing would be similar to those described under Alternative A. Under Alternative D, 768,989 acres would be closed to geothermal leasing, 228,968 more acres compared to Alternative A.

Impacts to recreation resources from mineral development would be similar to those described under Alternative A. Alternative D would apply slightly fewer restrictions on development through closures, which would increase noise, traffic, and visual impacts of mineral or other development and detract from the natural character of the landscape.

Under Alternative D, 768,989 acres would be closed to fluid mineral leasing, 228,968 more acres than under Alternative A. Impacts to recreation would be similar to those described under Alternative A for lands closed to oil and gas leasing, but the management would apply to fewer acres of land. Impacts to recreation resources from applying NSO, CSU, and TLS would be similar to those described under Alternative A, but within 2,172 acres of NSO, 1,238,899 acres of CSU, and 1,911,167 acres of TLS. The smaller areas of closure and NSO with additional areas of CSU and TLS compared to Alternative A could allow for more surface disturbing or disruptive activities with increased impacts from development activities, less quiet and solitude, and degraded opportunities for hunting or viewing big game.

Impacts to recreation resources from solid leasable minerals would be greater than those described under Alternative A. Under Alternative D, 610,342 acres would be closed to coal leasing, 124,378 more acres than Alternative A, 1,557,520 acres would be closed to oil shale leasing, 829,715 more acres than Alternative A, and 389,552 acres would be closed to trona leasing, 34,081 fewer acres compared to Alternative A. Recreation could be affected by increased mining activity from surface disturbance, mining equipment, or increased vehicle use near mining claims. Development may also reduce populations of game species, which could reduce hunting success levels and the overall quality of hunting experiences, as well as wildlife viewing opportunities. This management would affect the quality of recreation experiences, especially for recreationists seeking the opportunity for solitude and primitive/unconfined recreation.

Under Alternative D, 362,009 acres of lands would be closed to saleable mineral development, 471,710 fewer acres compared to Alternative A. Where mining and surface-disturbing activities were permitted, the quality of recreation experiences could be diminished where roads, trails, dispersed camping, and other types of recreation occur nearby.

Impacts to recreation resources from the management of wildlife, big game, raptors, fisheries and special status species would be similar to those described under Alternative A. Additional management to protect and improve wildlife habitat could support or improve recreational opportunities such as hunting, wildlife viewing, horseback riding, and fishing within the Planning Area.

Impacts to recreation resources from the management of cultural resources would be similar to those described under Alternative A. Additional protective management for reducing the impacts of mineral development and surface disturbing or disruptive activities would reduce visual impacts to recreation opportunities and enhance user experience where solitude and a pristine setting are part of the expectation.

Impacts to recreation from the management of visual resources would be the same as those described under Alternative A for VRM Class I (225,733 acres, 14 acres less than Alternative A). Under Alternative D, 1,178,718 acres would be managed as VRM Class II, 596,046 more acres than Alternative A. The management for VRM Class II would retain the character of the landscape, but it could reduce recreational opportunities related to developed recreation sites, overall, it would enhance recreational values related to solitude and natural environments. Under Alternative D, 985,638 acres would be managed as VRM Class III, 370,146 more acres than Alternative A, and 1,455,234 acres would be managed as VRM Class IV, 725,189 fewer acres as compared to Alternative A. Impacts to lands managed as VRM Class III and IV would be the same as those described under Alternative A. Fewer acres managed as VRM Class IV could enhance the quality of solitude, primitive, or unconfined recreation.

Impacts to recreation from ROW management would be similar to those described under Alternative A. Under Alternative D, 286,289 acres would be managed as ROW exclusion areas, 140,420 fewer acres compared to Alternative A. More acres would be managed as avoidance areas, 1,388,618 acres under Alternative D, 652,480 more acres than Alternative A. This could increase the extent of disturbed areas, which would increase visual impacts to recreation opportunities and degrade user experience where solitude and a pristine setting are part of the expectation.

Impacts to recreation from back country byways management would be the same as those described under Alternative A. However, the Wild Horse Loop Tour would be renamed the Pilot Butte Loop Back Country byway.

Impacts to recreation from livestock grazing management would be the same as those described under Alternative A. In addition, application of monitoring, greater protection of riparian areas and springs, and range improvements would be implemented. These management actions would improve the condition of natural resources and consequently would enhance recreational values through improved water quality for water-based recreational activities and improved wildlife habitat for hunting and wildlife observation.

Under Alternative D, impacts to recreation from management of special designations would be greater than Alternative A. Managing the Little Mountain ACEC, South Pass Historic Landscape ACEC, Special Status Plant Species ACEC, Steamboat Mountain ACEC, Oregon Buttes ACEC, extended Pine Springs ACEC, western portion of the Greater Sand Dunes ACEC, Red Desert Management Area, Pine Mountain Management Area, Sugarloaf Basin Management Area, Killpecker Sand Dunes SRMA, Little Mountain SRMA, Continental Divide National Scenic Trail SRMA, and Wind River Front SRMA for recreational opportunities could provide recreationists opportunities for motorized use, camping, developed recreation sites, or group activities. Not retaining certain SRMAs, Management Areas and ACECs could increase user conflicts among recreationists or with other resource uses.

Impacts to recreation from SRMA management would increase as compared to Alternative A. Under Alternative D SRMA acreage would be reduced to 135,549 acres as compared to 298,110 acres under Alternative A, a 55% reduction. Not retaining the Continental Divide Snowmobile Trail SRMA (Community), Green River SRMA

(Community) and Oregon and Mormon Pioneer National Historic Trails SRMA (Destination) could increase user conflicts and decrease opportunities for motorized use, camping, developed recreation sites, or group activities.

Impacts to recreation from managing the Green River, Sweetwater River, Big Sandy River, and the Bitter Creek segment between the towns of Rock Springs and Green River would be the same as Alternative A.

Impacts to recreation from OHV management would be the same as those described under Alternative A. Under Alternative D, there would be no category called "limited to existing roads and trails." While the routes would be moved under the "limited to designated roads and trails" for a total of 3,367,576 acres impacts to recreation would be similar to those described under both categories under Alternative A. Additional management to prohibit and limit OHV use would limit vehicular recreation in some areas compared to Alternative A. Recreation taking place in these areas would have fewer impacts from development activities, more quiet and solitude, and improved opportunities for hunting game species or viewing wildlife.

Impacts to recreation from the management of National Historic Trails, the Dry Sandy Swales trail segment, the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road would be the same as those described under Alternative A. In addition, greater restrictions on mineral development, surface disturbing activities, and construction of towers and other structures would reduce noise, traffic, and visual impacts of mineral or other development to a greater degree than under Alternative A.

Impacts to recreation from Management Area designations would increase as compared to Alternative A. Under Alternative D, total Management Area acreage would be reduced to 312,980 acres as compared to 580,010 acres under Alternative A, a 46% reduction. Reducing the size of the Red Desert Management Area and not retaining the Monument Valley Management Area, Big Sandy Openings Management Area or West Sand Dunes Archeological District would decrease opportunities for motorized use, camping, developed recreation sites, or group activities. Impacts from the management of the Pine Mountain Management Area (62,760 acres) and Sugarloaf Basin Management Area (87,240 acres) would be the same as those described under Alternative A.

Impacts to recreation from the management of ACECs would be greater than Alternative A. The Little Mountain ACEC (108,010 acres), South Pass Historic Landscape ACEC (53,940 acres), Steamboat Mountain ACEC (47,280 acres), and Greater Sand Dunes ACEC (26,364 acres) would be reduced in size as compared to Alternative A. The Oregon Buttes ACEC (3,440 acres) and Pine Springs ACEC (6,480 acres) would be retained with a minimal increase. The Cedar Canyon ACEC, Natural Corrals ACEC (630 acres), and Pinnacles ACEC would not be retained.

Impacts to recreation from management of the Special Status Plant Species ACEC (1,120 acres), Steamboat Mountain ACEC (47,280 acres) would be similar to those described under Alternative A.

Impacts to recreation from the management of National Historic Landmarks would be the same as those described under Alternative B.

## 4.17.4 Proposed RMP

Impacts on recreation resources from the management of air quality, geology, geophysical exploration, wildland fire ecology, grassland and shrubland communities, wildlife, big game, raptors, fisheries, lands and realty, wild horses, cultural resources, visual resources, livestock grazing, WSAs, WSRs, and public safety would be the same as those described under Alternatives A and D.

Impacts on recreation resources from the management of special status species, riparian and wetland resources, lands with wilderness characteristics, and travel management would be the same as those described under Alternative D.

Impacts on recreation resources from the management of soils would be similar to those described under Alternatives A, B, and D emphasizing available data, updated policy guidance, and case-by-case review to limit surface-disturbing activities. Management under the Proposed RMP could result in some reduction of allowable motorized recreation activities; however, modest restrictions to surface disturbance and targeted BMPs could support the quality of undeveloped, primitive recreation experiences.

Impacts on recreation resources from the management of water resources would be similar to those described under Alternatives A and D. Management for water resources from the avoidance of development in wetlands and floodplains could maintain or enhance the quality of recreation experiences, especially for recreationists seeking the opportunity for solitude and primitive recreation. However, the management could prevent some recreational access if stream crossings were prohibited. Additionally, overnight camping would be prohibited within 50 feet of riparian areas or surface water as described in Alternative D versus the 200-foot setback described in Alternative B. Camping areas would be closed if damage occurs but reopened following successful restoration. This action would maintain recreational values related to solitude and undisturbed natural environments. Furthermore, limiting or closing aquifer recharge areas to fluid minerals and coal development could reduce noise, traffic, and visual impacts of mineral development, which could affect recreation and the qualities of solitude, vistas, and naturalness.

Impacts on recreation resources from locatable mineral development would be similar to those described under Alternatives A and D. Under the Proposed RMP, 900,204 acres would be pursued for withdrawal from locatable mineral entry, a larger closure than proposed under Alternative A (62% more), but approximately 55% less than the acreage proposed under Alternative B. Locatable mineral withdrawals would reduce the potential for noise, traffic, and visual impacts of mineral development, which could affect recreation and the qualities of solitude, vistas, and naturalness.

Impacts on recreation resources from solid leasable and saleable minerals would be similar to those described under Alternative A. The Proposed RMP includes closures to solid leasable minerals and mineral materials consistent with Alternative A, but substantially less than under Alternative B, and would involve fewer restrictions. Development of solid leasable and saleable minerals could reduce hunting experiences and success levels, as well as wildlife viewing opportunities. This would also affect camping experiences where campgrounds are adjacent to solid leasable and saleable mineral development.

Under the Proposed RMP, 1,076,039 acres would be closed to fluid mineral leasing and 215,437 acres would be subject to NSO restrictions, which is a larger area than described under Alternative A but smaller than described under Alternative B. Impacts on recreation would be similar to those described under Alternative A for lands closed to oil and gas leasing, but the management would apply to more acres of land. This larger area of closures and NSO, compared to Alternative A, could limit surface-disturbing or disruptive activities. Minimizing surface-disturbing activities would limit impacts from fluid mineral development and improved preservation of quiet and solitude and opportunities for hunting or viewing wildlife.

Impacts on recreation resources from forest and woodland management would be similar to those described under Alternative B. Specific guidance for providing forest and woodland products to the public, as described in Alternative D, have been included in the Proposed RMP. The case-by-case basis of forest product collection (e.g., posts and poles, firewood, sawlogs, Christmas trees, burlwood, pre-commercial thinning, and cottonwood tree harvesting) could support recreation experiences and public engagement with, and connection to, the landscape for pleasure and hobby.

Impacts on recreational resources from management of back country byways is similar to Alternative D with the retention of Pilot Butte Loop Back Country Byway (renamed from Wild Horse Loop Tour). There is additional emphasis on a case-by-case basis and the Cherokee Trail and Tri-territory Short Loop would not be designated as back country byways for mountain bike use due to concerns for the integrity of cultural/historic values.

Impacts on recreation from the management of visual resources would be the same as those described under Alternative A except that more acres would be managed as VRM Class II and fewer acres would be managed as VRM Class IV. Approximately 1,301,004 acres would be classified as VRM Class II (718,332 more acres than Alternative A). The management for VRM Class II would retain the character of the landscape, but it could reduce recreational opportunities related to developed recreation sites; overall, it would enhance recreational values related to solitude and natural environments. Under the Proposed RMP, 1,929,258 acres would be managed as VRM Class IV (251,165 fewer acres than Alternative A). Fewer acres managed as VRM Class IV could enhance the quality of solitude, primitive, or unconfined recreation.

Impacts on recreation from ROW and renewable energy management are similar to those described under Alternative A except that acres of ROW exclusion and ROW avoidance areas would be increased to 921,059 acres (116% increase compared with Alternative A) and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). This could reduce the extent of disturbed areas, which would reduce visual impacts to recreation opportunities and enhance recreational user experience.

The recreation impacts from management of special recreation permits, undeveloped recreation, 14-Mile Recreation Area, firewood cutting, wild horse viewing, and recreational prospecting would be the same as described for Alternative B.

Under the Proposed RMP, surface-disturbing activities would be allowed within ¼ mile of developed recreation sites, on a case-by-case basis, only if they do not adversely affect recreational uses and objectives for the area. This is a reduction from the 3-mile buffer or the visual horizon, whichever is closer, presented in Alternative B. Impacts could be similar to those described under Alternative B but would involve fewer restrictions on development through closures and NSO stipulations, and therefore impacts would be more similar to those of Alternative D. This could reduce populations of game species, which could reduce hunting success levels and the overall quality of hunting experiences, as well as wildlife viewing opportunities. This management would affect the quality of recreation experiences, especially for recreationists seeking the opportunity for solitude and primitive/unconfined recreation.

The Proposed RMP includes five SRMAs, fewer than under Alternative A but more than included under Alternative B, which eliminates all SRMAs. Maintaining SRMAs could provide recreationists opportunities for motorized use, camping, developed recreation sites, or group activities. Not retaining certain SRMAs, management areas, and ACECs could increase user conflicts among recreationists or with other resource uses. Impacts on each SRMA are addressed in the following paragraphs.

Impacts on the Continental Divide National Scenic Trail SRMA in the Proposed RMP would be the same as described under Alternative D, and would have restrictions for ROW exclusions and mineral operations and closures along the trail than under Alternative B. As under Alternative D, where the BLM and State Historic Preservation Officer have agreed that the setting of the NHT in the western portion of the RSFO have been compromised by existing development, the corridor will be reduced to ¼ mile on either side of the NHT and closed to oil shale. The recreation impacts from these exceptions are the same as described for Alternative D and limits on surface-disturbing activities would reduce noise, traffic, and visual impacts of mineral or other development on trail use.

The Green River SRMA would not be retained under the Proposed RMP. Impacts from elimination of this designation are the same as described for Alternative B and could increase user conflicts and decrease opportunities for front and middle country recreation experiences including developed recreation sites, camping, and group activities.

Killpecker Sand Dunes SRMA would be reduced in area to only include the OHV Open Play Area (currently Alternative A is 39,290 acres and would be reduced to 12,802 acres). This reduction is similar to Alternative D

and would focus on OHV open play area and eliminate the WSA portion of the current SRMA, creating a more manageable recreation area without conflicting values (i.e., primitive recreation versus OHV use). Recreation impacts on management areas for Killpecker Sand Dunes SRMA align with those described for Alternative D.

Oregon and Mormon Pioneer NHT SRMA would not be retained. Impacts on recreation are the same as described for Alternative B and could increase user conflicts, reduce historic tourism recreation experiences, and reduce protection of historic resources.

Little Mountain Area would be designated as a new SRMA (40,455 acres) with a Class II VRM designation. Impacts on recreation are the same as described for Alternative D.

Under the Proposed RMP, the Wind River Front SRMA would be reduced in size to only include the eastern unit (Alternative A is 257,680 acres and the Proposed RMP is 85,335 acres). Recreation impacts would include decreased opportunities for middle and back country recreation experiences and an increase in potential user conflicts, similar to those described for Alternative D.

Impacts on recreation from management of special designation areas would be less than under Alternative A but greater than under Alternative B. The Proposed RMP designates 935,135 acres as ACECs, 648,665 more acres (226%) than Alternative A and 670,525 fewer acres compared to the area proposed in Alternative B. Overall management of special designation areas under the Proposed RMP could increase certain types of user conflicts while preventing or reducing noise, traffic, and visual impacts from development and supporting the natural character of the landscape.

Impacts on recreation from eliminating the designation of the Cedar Canyon ACEC (2,540 acres) would be similar to those described for Alternative C. Recreation experiences could be diminished and surface disturbance activities could possibly displace recreationists to other areas, reduce the naturalness of back country recreation, and reduce opportunities for solitude.

Impacts on recreation from reducing the size of the Greater Sand Dunes (Alternative A is 39,290 acres reduced to 26,746 acres) would be the same as described for Alternative D.

Impacts on recreation for Natural Corrals, Oregon Buttes, South Pass Historic Landscape, Special Status Plant Species, and White Mountain Petroglyphs ACECs would be the same as described for Alternative B.

Impacts on Pine Springs ACEC would also be the same as described for Alternative B with the exception that OHV use would not be prohibited (same as Alternative A). OHV and some non-motorized vehicle travel along the eastern edge would be limited to existing roads and trails. This action would maintain opportunities for trail-based OHV recreation within middle country settings and provide vehicle access to less-visited areas of the planning area. It would diminish the quality of primitive recreation and back country experience.

Impacts on recreation for designating South Wind River (281,104 acres) and Big Sandy Openings (1,994 acres) ACECs would be similar as described for Alternative B. The Red Desert Watershed Management Area would not be retained under the Proposed RMP because the area was not found to contain values that meet the relevance and importance criteria. The Steamboat Mountain Area would be expanded to include the Steamboat Mountain Management Area, western portion of the Red Desert Watershed Management Area, and other areas (from 47,280 acres to 439,081 acres; see Map 2-40). Designating and managing an expanded Steamboat Mountain ACEC for recreation, watershed, sensitive big game habitat, and wildlife values could support a range of recreational opportunities such as hunting, wildlife viewing, horseback riding, and fishing from back country to front country. This action could prevent or reduce noise, traffic, and visual impacts of mineral or other development and support the natural character of the landscape. Impacts from this additional and expanded management would be similar to those of Alternative A but over a broader area. Impacts on recreation for not designating East Sand Dunes –

Red Lake ACEC, because it is covered by WSAs, and Big Game Migration Corridor ACEC, due to precedent for all migration corridors, would be the same as described under Alternative D.

# 4.18 FORESTS AND WOODLANDS

## 4.18.1 Alternative B

Impacts on forests and woodlands would be minimal or not be anticipated as a result of implementing management actions for riparian and wetlands resources, livestock grazing, and OHV use.

Impacts to forests and woodlands from the management of soil and geologic resources, grassland and shrubland resources, cultural and paleontological resources, lands and realty, renewable energy, and recreation would be the same as those discussed under Alternative A.

Impacts to forests and woodlands from the management of air resources would be the same as those discussed under Alternative A, except dust abatement measures would be more restrictive. The dust abatement measures would require commercial timber harvest operations to perform additional emission control activities and could restrict available vehicle routes, which could reduce the profitability of the harvest operation.

Impacts to forests and woodlands from the management of water resources would be similar to those discussed under Alternative A, except there would be greater surface disturbing protections and erosion control requirements under Alternative B. This management would increase restrictions on forest and woodland management activities, and harvest volumes could be reduced by these restrictions.

Managing lands identified as having wilderness characteristics specifically to preserve those characteristics would provide additional restrictions on forest product harvesting in the planning area. Management to limit surface disturbing activities, surface occupancy, and degradation of viewshed or setting impacts, and help preserve wilderness characteristics would also be beneficial to habitat quality in forest and woodland communities. Harvest volumes could be reduced or precluded by these restrictions.

Under Alternative B, 2,186,218 acres in the planning area would be closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (1,646,197 more acres than Alternative A); 1,993,908 acres would be pursued for withdrawal from locatable mineral entry (1,437,350 more acres than Alternative A); and 2,581,741 acres would be closed to saleable mineral development and/or disposals (1,748,022 more acres than Alternative A) (Tables 2-3, 2-4, and 2-8 in Appendix V, and Maps 2-2, 2-7, and 2-17). Under Alternative B, 3,535,546 acres would be closed to coal and 2,122,282 acres would be closed to oil shale leasing and development. The protections to lands closed to solid mineral development would be applied to 2,741,709 more acres of land closed to coal and 1,394,477 more acres of lands closed to oil shale compared to Alternative A. Compared to Alternative A, more acres would be closed to the exploration and development of fluid and saleable minerals; and fewer acres would be pursued for withdrawal from locatable mineral entry. This would primarily impact forest and woodland resources by increasing competition for access to lands containing both mineable minerals and harvestable forest resources. Mineral resource development could preclude or restrict the harvesting of timber or woodland products at those development sites if harvesting activities were in conflict with mining activities.

Impacts to forests and woodlands from the management of wildland fire would be similar to Alternative A, except more emphasis would be placed on allowing wildfire to function as a natural management tool. This management could benefit forest and woodland communities by enhancing or improving the health of those resources through the removal of diseased trees, thinning of stands that are too dense to support good growth, initiating natural reforestation and reducing the potential direct destruction of forest products by a future wildfire. The management priorities and methods could impose additional closures or use restrictions on harvest sites and harvest methods

and could result in a decrease in harvest volumes. Prohibiting pre-commercial thinning could also result in stagnation of growth, and longer stand rotation lengths. Relying on natural processes, rather than utilization of logging or timbering to improve decadent stands, would decrease timber harvest volumes. Allowing harvested/denuded areas to revegetate naturally could result in slower regeneration of forest stands or forest stands with a lower proportion of commercially important species or conversion to non-forest or non-woodland. Forest stands that have been impacted by wildland fire sometimes result in removal of seed sources and seedbank of those commercially important forest stand species. This, in turn, could result in decreased harvest volumes.

Impacts to forests and woodlands from the management of invasive species and pests would be similar to those described under Alternative A. Additionally, restricting the use of chemicals could result in fewer methods to control invasive species that could harm harvestable forest products. Not allowing broad application of chemicals over a community of vegetation to kill invasive species would reduce any harmful impacts to native species and supporting resources that are sensitive to those chemicals.

Impacts to forests and woodlands from the management of fish and wildlife resources and special status species would be similar to Alternative A. The management could potentially restrict access to harvest sites by reducing vehicular routes, and could prohibit or limit the surface disturbance, structures, and equipment that are used in harvesting and reforestation activities. Harvest volumes could be reduced or precluded by these restrictions.

Impacts to forests and woodlands from VRM would be similar to Alternative A, except that larger areas of land would be managed as VRM Class II (1,566,230 acres more than Alternative A), and fewer acres of land would be managed as VRM Class IV (1,616,669 acres less than Alternative A). Management of larger acreages of land under VRM Class II could place greater limitations on forest product harvesting activities by controlling harvesting techniques, the size and shape of clear cuts and other forest management practices. Harvest volumes could be reduced or precluded by the management restrictions. Clear cuts could have the potential to impact VRM objectives in the planning area.

Impacts to forests and woodlands from the management of ROWs would be similar to Alternative A, except 2,480,876 acres would be designated as exclusion for ROWs (2,085,927 acres more than Alternative A) and 133,903 acres would be designated as ROW avoidance areas (602,235 acres fewer than Alternative A), which would reduce the extent of related impacts.

Impacts to forests and woodlands from the management to designate and manage travel in the planning area would be similar to Alternative A. Management that could be applied to byways and road developments could potentially restrict access to harvest sites, reduce vehicular routes, prohibit or limit surface disturbance and use of equipment for harvesting and reforestation activities. Harvest volumes could be reduced or precluded by these restrictions.

Impacts to forests and woodlands from the management to protect congressionally designated and/or eligible trails, and NHTs are similar to Alternative A, except there are greater protective measures proposed such as larger buffer zones and specific closures and restrictions. Projects or activities with large impacts to the viewsheds, such as clear cuts, would require larger setbacks to protect trails from visual setting impacts. Large, heavy vehicles would be prohibited from driving on contributing segments of the NHTs. The greater restrictions on surface disturbing activities, vehicle travel, and stricter VRM classifications under this alternative could potentially restrict access to harvest sites, reduce vehicular routes, prohibit or limit surface disturbance and equipment used for harvesting and reforestation activities. Harvest volumes could be reduced or precluded by these restrictions.

Impacts to forests and woodlands from the management of WSAs and WSRs would be similar to those described under Alternative A, but there would be a greater emphasis on protecting wilderness setting and viewshed values, which could reduce the opportunities for timber harvest activities in these areas.

Impacts to forests and woodlands from the management of ACECs would be similar to those described under Alternative A, except 1,605,660 acres (1,319,210 more acres than Alternative A) would be designated as ACECs. The management could provide additional protections to forest and woodland communities by reducing resource loss and maintaining or enhancing the health of those resources. Harvesting opportunities and volumes could be reduced, but resource health could be improved. The greater restrictions on surface disturbing activities, additional ACEC stipulations, and stricter VRM classifications under this alternative, could potentially restrict access to harvest sites prohibit or limit surface disturbance and equipment used in harvesting and reforestation activities. Harvest volumes could be reduced or precluded by these restrictions. Clear cuts could be prohibited or limited by more restrictive VRM classifications.

## 4.18.2 Alternative C

Impacts on forests and woodlands would not be anticipated as a result of implementing management actions for riparian and wetlands resources, livestock grazing, and OHV travel.

Impacts to forests and woodlands from the management of air resources, soil and geologic resources, grassland and shrubland resources, lands and realty, and renewable energy would be the same as those presented under Alternative A.

Impacts to forests and woodlands from the management water resources would be similar to Alternative A. The less restrictive management for surface disturbing activities under this alternative could potentially increase access to harvest sites and allow surface disturbances associated with harvesting and reforestation activities. Harvest volumes could therefore potentially increase in those areas.

The management measures proposed under Alternative B to protect lands with wilderness characteristics would not be implemented under this alternative. The impacts of not managing to protect wilderness characteristics would increase the available land and opportunities for forest product harvesting. Harvesting volumes could potentially increase in those areas where protective measures are not applied.

Under this alternative, 225,782 acres in the planning area would be closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (314,239 fewer acres than under Alternative A); 234,961 acres would be pursued for withdrawal from locatable mineral entry (321,597 fewer than Alternative A); 226,421 acres would be closed to saleable mineral development and/or disposals (607,298 fewer acres than Alternative A); 226,219 acres would be closed to coal leasing (259,745 fewer than Alternative A); and 225,965 acres would be closed to oil shale leasing (501,840 fewer acres than Alternative A) (Maps 2-3, 2-13, and 2-18). Compared to Alternative A, fewer acres would be unavailable for the exploration and/or development of locatable, fluid, solid, and saleable minerals. This could impact forests and woodlands by increasing competition for access to lands containing both mineable mineral and harvestable forest resources. Mineral resource development could preclude or restrict the harvesting of timber or woodland products at those development sites if harvesting activities were in conflict with mining activities.

Impacts to forests and woodlands from the management of wildland fire would be similar to Alternative A, except that full wildfire suppression would be used on all unplanned ignitions to limit the total number of acres burned. Suppressing wildfire could reduce the potential direct damage or destruction to existing forest products.

Compared to Alternative A, forest and woodland management emphasis would be on actions that maintain and enhance forest and woodland health across the landscape to provide forest and woodland products to the public. This could open areas to harvests, allow greater flexibility in harvest methods and timber treatments, and thereby potentially increase harvest volumes. Allowing clear-cuts could increase timber harvest volumes in the short term; over the long term, allowing clear-cuts could be a less sustainable forestry management practice, resulting in decreased harvest volumes. Pre-commercial thinning could prevent stagnation of growth, resulting in shortened

stand rotation lengths and increased timber harvest volumes. Logging or timbering would be used (over wildfire and other natural processes) to revitalize decadent stands, improve stand density, and increase canopy cover. After timber sales, vegetative treatment, or fire, forests and woodlands would be replanted as soon as possible, which would support future forest product production.

Impacts to forests and woodlands from the management of invasive species and pests would be similar to Alternative A. Control of noxious weeds and other invasive plant species could be achieved through chemical, mechanical, and biological methods. Allowing chemical treatments would result in more methods to control invasive species that can harm harvestable forest products. Allowing broad application of chemicals over a community of vegetation to kill invasive species could result in some harmful impacts to native species and supporting resources that could be sensitive to those chemicals.

Impacts to forests and woodlands from the management of fish and wildlife resources and special status species would be similar to Alternative A, except that smaller surface disturbing and/or surface use distance buffer zones would be applied around developments and operations. The management under Alternative C could open areas to harvests, allow greater flexibility in harvest methods and timber treatments, and thereby potentially increase harvest volumes.

Impacts to forests and woodlands from the management of cultural and paleontological resources are similar to those described under Alternative A, except that smaller surface disturbing/view shed buffer zone distances and less restrictive land use stipulations would be applied around known cultural and paleontological sites. Fewer land use prohibitions, restrictions, and smaller sized buffer zones under this alternative, could open areas to harvests, allow greater flexibility in harvest methods and timber treatments, and thereby potentially increase harvest volumes.

Impacts to forests and woodlands from VRM would be similar to those described under Alternative A, except that approximately 226,629 acres would be classified as VRM Class I (912 more than Alternative A), 607,899 acres VRM Class II (25,227 more than Alternative A), 395,683 acres VRM Class III (219,809 fewer than Alternative A), and 2,374,706 acres as VRM Class IV (194,283 more than Alternative A).

The actions to designate and manage ROWs and transportation corridors in the planning area would be the same as those described under Alternative A. Under Alternative C, 225,784 acres would be designated as exclusion for ROWs (200,925 fewer than Alternative A) and 31,018 acres would be designated as ROW avoidance areas (705,120 fewer than Alternative A).

Impacts to forests and woodlands from the management to designate and manage travel in the planning area would be similar to Alternative A. The management for not retaining existing back country byways or designating new ones under this alternative could potentially improve access to harvest sites, increase vehicular routes, and allow surface disturbance inherent in harvesting and reforestation activities. Harvest volumes could increase under these management actions.

Impacts to forests and woodlands from the management of recreation would be similar to Alternative A. Overall, fewer restrictions under this alternative, could potentially improve access to harvest sites, increase vehicular routes, and allow surface disturbance associated with harvesting and reforestation activities.

Impacts to forests and woodlands from the management to protect congressionally designated and/or eligible trails, and NHTs would be similar to Alternative A. The less restrictive management could potentially improve access to harvest sites and allow surface disturbance and equipment used harvesting and reforestation activities. Harvest volumes could be increased under those conditions.

Impacts to forests and woodlands from the management of WSAs and WSRs would be similar to Alternative A, but there would be a greater emphasis on managing designated areas for multiple use and no WSR management would be applied. The management under Alternative C could increase vehicular access to forested areas, and allow for additional surface disturbance, which could provide increased opportunities for timber harvest in these areas.

Under this Alternative, no ACECs would be retained. Removing all the ACEC-specific land use, VRM, and surface disturbing restrictions under this alternative could potentially improve access to harvest sites and allow for increased harvesting and reforestation activities. The application of surface use restrictions and seasonal limitations in sensitive wildlife habitats could limit some forest product harvesting.

## 4.18.3 Alternative D

Impacts on forests and woodlands would not be anticipated as a result of implementing management actions for riparian and wetlands resources, livestock grazing, and OHV travel.

Impacts to forests and woodlands from the management of air resources, soil and geologic resources, wildland fire, grassland and shrubland resources, travel and transportation, cultural and paleontological, lands and realty, and renewable energy would be the same as those presented under Alternative A.

Under Alternative D, lands would be managed for a variety of uses or with other existing management, such as ACECs. In these areas, use and harvest of forests and woodlands could increase depending on management of these areas. Access to forests and woodlands could increase, making harvest activities possible in these areas.

Under Alternative D, 768,989 acres in the planning area would be closed to fluid mineral (oil, gas, and geothermal) exploration, leasing, and development (228,968 more acres than Alternative A); 362,009 acres would be closed to saleable mineral development and/or disposals (471,710 fewer acres than Alternative A); 610,342 acres would be closed to coal leasing, 124,378 more acres than Alternative A, and 1,557,520 would be closed to oil shale leasing, 829,715 more acres than Alternative A. Compared to Alternative A, fewer acres would be closed to fluid and solid minerals and saleable minerals. This would primarily impact forests and woodlands where competition for access to lands containing both mineable minerals and harvestable forest resources occurs. Mineral resource development could preclude or restrict the harvesting of timber or woodland products at those development sites if harvesting activities were in conflict with mining activities.

Under Alternative D, impacts from forest and woodland resources would be similar to those described under Alternative A. There would be no timber compartments under Alternative D. This could open areas to harvests, allow greater flexibility in harvest methods and timber treatments, and thereby potentially increase harvest volumes. Allowing cottonwood tree harvest on a case-by case basis could potentially increase limited harvest of cottonwood.

Impacts to forests and woodlands from the management of fish and wildlife resources and special status species would be similar to those described Alternative A, except that additional surface use restrictions would be applied. The management could potentially restrict access to harvest sites by reducing vehicular routes, and could prohibit or limit the surface disturbance, and equipment that are used in harvesting and reforestation activities. Harvest volumes could be reduced or precluded by these restrictions.

Impacts to forests and woodlands from VRM would be similar to Alternative A, except that larger areas of land would be managed as VRM Class II (596,046 acres more than Alternative A) and VRM Class III (122,819 acres more than Alternative A), and fewer acres of land would be managed as VRM Class IV (725,189 acres less than Alternative A). Management of larger acreages of land under VRM Class II and III would place greater limitations to forest product harvesting activities, by potentially prohibiting or limiting surface and viewshed disturbance

associated with timber harvesting and reforestation activities. Harvest volumes could be reduced or precluded by the management restrictions. Clear cuts could have the potential to impact VRM objectives in the planning area. Requirements for visual simulation and VRM classification analyses prior to commercial timbering projects could incur additional delays and costs.

Impacts to forests and woodlands from ROWs and transportation corridors in the planning area would be similar to Alternative A. Under Alternative D, 286,289 acres would be designated as exclusion areas for ROWs (140,420 acres less than Alternative A) and 1,388,618 acres would be designated as ROW avoidance areas (652,480 more than Alternative A). Some ROW developments such as powerlines and pipelines require a large-scale removal of trees and woodlands along a swath of land to accommodate those structures. Larger exclusion areas under this alternative could increase the need for forest clearings to accommodate ROWs. Harvest volumes could be reduced or prohibited by greater restrictions.

Impacts to forests and woodlands from National Historic and Scenic Trails and National Historic and Scenic Trails-related resources, WSAs, WSRs, special management areas, and ACEC management would be the same as those described under Alternative A.

## 4.18.4 Proposed RMP

The Proposed RMP is a combination of management actions primarily from Alternatives B and D with additional management actions common to all alternatives and would have similar impacts as previously described under those alternatives. In general, the Proposed RMP would have increased management for forests and woodlands than Alternatives A, C, and D, but less than Alternative B. Under the Proposed RMP, harvesting of timber would focus on mature, decadent, and diseased trees with limitations on habitat fragmentation and ecological effects to natural regeneration.

Impacts on forests and woodlands would not be anticipated as a result of implementing management actions for riparian and wetlands resources, livestock grazing, and OHV travel.

Impacts on forests and woodlands from the management of air resources, soil and geologic resources, wildland fire, grassland and shrubland resources, travel and transportation, cultural and paleontological resources, lands and realty, and renewable energy would be similar to those presented under Alternative B.

Impacts on forests and woodlands from forest and woodland resource management would be similar to those discussed under Alternatives A and B. However, under the Proposed RMP forests and woodlands would be managed for a variety of uses while providing the public with access to forest and woodland products across the landscape. Additionally, forest and woodland management will use all available treatment methods, and natural processes would be allowed. Under the Proposed RMP, slash resulting from timber harvesting will be made available for biomass, piled or lopped and scattered, roller chopped, or burned to provide watershed protection, promote reforestation and reclamation, provide nutrient recycling, and improve wildlife habitat. Firewood cutting of dead standing or downed forest timber in designated cutting areas would be permitted. Management of conifer and aspen communities would be designed to promote forest and woodland health. Old, decadent trees could be left standing or downed to provide cover or other habitat for wildlife.

Impacts on forests and woodlands from the management of water resources would be similar to those discussed under Alternative A. Under the Proposed RMP, clearcutting is not allowed within 100 feet of drainages or standing and flowing water. Other logging activities are allowed if other resource values would not be adversely affected. Under the Proposed RMP, logging operations are limited on slopes steeper than 25% to technologically, environmentally, and economically acceptable methods.

Impacts on forests and woodlands from the management of fish and wildlife resources would be similar to those discussed under Alternative A. Under the Proposed RMP, timber harvesting activities would be restricted seasonally, as appropriate, to protect big game wintering and parturition activity, grouse (e.g., sage, sharptail) strutting and nesting, and raptor nesting activity. Approximately 1,436 acres of commercial timber within big game winter ranges are closed to logging activity, usually from November 15 to April 30. If the logging unit encompasses big game parturition habitats, the area is closed to timber harvest activities usually from May 1 through June 30. There would be no logging activity within grouse nesting sites and raptor nesting sites usually from February 1 to July 31 (see minerals management). Exceptions may be approved if conditions described in Appendix B apply.

Impacts to forests and woodlands from VRM would be similar to those of Alternative A, except that more acres would be managed as VRM Class II and fewer acres would be managed as VRM Class IV. Approximately 1,301,004 acres would be classified as VRM Class II (718,332 more acres than Alternative A) and 1,929,258 acres as VRM Class IV (251,165 fewer acres than Alternative A). Management of larger acreages of land under VRM Class II would place greater limitations on forest product harvesting activities by potentially prohibiting or limiting surface and viewshed disturbance associated with timber harvesting and reforestation activities. Harvest volumes could be reduced or precluded by the management restrictions. Clear cuts could have the potential to impact VRM objectives in the planning area. Requirements for visual simulation and VRM classification analyses prior to commercial timbering projects could incur additional delays and costs.

Impacts to forests and woodlands resulting from implementing lands and realty actions would be similar to those presented under Alternative A, except that acres of ROW exclusion and ROW avoidance areas would be increased to 921,059 acres (116% increase compared with Alternative A) and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). Some ROW developments such as powerlines and pipelines require a large-scale removal of trees and woodlands along a swath of land to accommodate those structures. Larger exclusion areas under this alternative could increase the need for forest clearings to accommodate ROWs. Harvest volumes could be reduced or prohibited by greater restrictions.

Impacts to forests and woodlands from National Historic and Scenic Trails and National Historic and Scenic Trails-related resources, WSAs, WSRs, special management areas, and ACEC management would be the same as those described under Alternative A.

Compared to Alternative B, forest and woodland management emphasis would be on actions that maintain and enhance forest and woodland health across the landscape to provide forest and woodland products to the public. Under the Proposed RMP, no timber compartments would be utilized and instead would be permitted, on a case-by-case basis, for collection and harvest of forest products. Pre-commercial thinning in overstocked areas and regenerated timber sale areas when trees in those areas reach the 10- to 30-year age class is allowable. Similarly, cottonwood tree harvest is allowable on a case-by-case basis. Revegetation inventory and monitoring data will be required following harvest, vegetation treatments, and fire, if natural regeneration does not occur within 5 years. Silvicultural BMPs and individual stand objectives for forest management would be followed including managing stand density, revitalizing decadent stands, and managing canopy cover. Forests and woodlands, under the Proposed RMP, would identify special management areas and incorporate appropriate management into activity plans. Examples of such special tree populations include the Douglas fir on Pine Butte, the northernmost extent of Colorado pinyon pine in Wild Horse Basin, old-growth juniper stands, and the isolated alpine woodland community on top of Black Mountain at Pine Springs.

# 4.19 LANDS AND REALTY

## 4.19.1 Alternative B

Impacts on lands and realty from management of cultural and paleontological resources, recreation, and travel and transportation would be the same as Alternative A.

Impacts on lands and realty resulting from implementing restrictions on ROWs would be similar to those presented under Alternative A, except impacts would be more extensive due to a large increase in areas managed as ROW exclusion areas.

Under this alternative, land use authorizations would benefit the overall management of public lands by making them available throughout the planning area for ROWs, permits, and leases, except in areas designated as exclusion or avoidance areas, as defined below. The impacts on land use authorizations would be more restricting than Alternative A, in that pipeline trenches would not be allowed to stay open longer than 10 days during the construction phase and would require mitigation measures for impacts to livestock, wildlife, and public safety. This would decrease both the amount of time allotted for construction as well as the time of year construction of ROWs would be available to occur. By imposing these types of restrictions, ROWs would only be implemented for a small duration and at certain times of the year for less impact to livestock and wildlife. These restrictions would result in the relocation or redesign of proposed ROWs and would increase management efforts and costs related to proposals submitted by ROW applicants, which are administered by the lands and realty program.

Under this alternative, areas managed as exclusion areas for ROWs would increase to 68% of the planning area (2,480,876 acres) and areas managed as avoidance areas for ROWs would decrease to 4% of the planning area (133,903 acres). This would increase the acres in which ROWs are precluded, which would potentially increase the number of ROW facilities precluded from development.

Impacts on lands and realty management resulting from processing land tenure/landownership adjustments would be similar to Alternative A, including that aquatic, wetland, and riparian habitat would not be suitable for disposal. This might reduce the ability to dispose of or acquire (through exchange) land parcels in an effort to reduce fragmented surface ownership and improve the manageability of public lands. Exceptions would be considered in cases of where land exchanges would allow for more contiguous federal ownership patterns. In addition, acquiring lands could result in further consolidation and improved manageability of public lands.

Impacts on lands and realty management resulting from oil and gas exploration and development within the planning area would be similar to those identified in Alternative A, except the projected level of ROW applications would decrease. Fewer areas would be available for leasing and development of oil and gas facilities because 2,186,218 acres would be unavailable to oil and gas leasing, 813,354 acres would be managed as NSO areas, and 99,674 acres would be managed as CSU areas. As a result, fewer acres are available for oil and gas development, which represents a 23% decrease compared to Alternative A.

Impacts on lands and realty management resulting from development of solid leasable minerals, locatable minerals, and mineral materials would be similar to those identified in Alternative A, except the level of development would likely decrease as more areas would be closed to such development. Because the number of ROW applications/authorizations and extent of related development would be commensurate with the level of anticipated mineral development, a decrease in ROW applications and authorizations would be realized. Under this alternative, 3,535,546 acres would be closed to coal development, 2,122,282 acres would be closed to oil shale leasing, 1,993,908 acres would be pursued for withdrawal from locatable mineral entry, and 2,581,741 acres would be closed to mineral material sales and permits.

Impacts from VRM would be similar to those under Alternative A, except VRM classifications would affect the location of new ROWs and facilities. ROW projects would be designed to meet the objectives of the VRM class established for the project area. Most ROWs and facilities would be compatible with VRM Class III (666,522 acres) and VRM Class IV (563,754 acres). In VRM Class II (2,148,902 acres) areas, ROW actions would be limited and would require mitigation to ensure that the project or surface disturbance did not attract the attention of the casual observer.

Similar to Alternative A, mitigation measures to protect wildlife resources, threatened and endangered species, and sensitive species' habitats would impact the potential disposal of lands. Seasonal closures would result in short-term impacts on lands and realty actions in sensitive areas such as the big game crucial winter range. Year-round restrictions and no surface-disturbing activities in areas such as sensitive aquatic and critical habitats would restrict the location of ROWs and land disposal actions over the long term.

Impacts to lands and realty from the management of SD/MAs would be similar to Alternative A, except ACECs would be managed as ROW avoidance or exclusion areas. These restrictions may result in the re-siting or redesign of proposed ROWs and would increase lands and realty management efforts and related costs.

## 4.19.2 Alternative C

Impacts on lands and realty from cultural and paleontological resources would be the same as those described under Alternative A.

Impacts on lands and realty resulting from implementing restrictions on ROWs would be similar to those presented under Alternative A, except impacts would be less extensive due to a large increase in areas managed as ROW avoidance areas.

Similar to Alternative A, land use authorizations would benefit the overall management of public lands by making them available throughout the planning area for ROWs, permits, and leases, except in areas designated as exclusion or avoidance areas, as defined below. The impacts on land use authorizations would be less restrictive than Alternative A; and similar to Alternative A, mitigation measures would be necessary for impacts to livestock, wildlife, and public safety due to the restriction to only allow pipeline trenches to be opened no longer than 10 days during the construction phase. This restriction would decrease both the amount of time allotted for construction as well as the time of year construction of ROWs would be available to occur. By imposing these types of restrictions, ROWs would only be implemented for a small duration and at certain times of the year for less impact to livestock and wildlife. These restrictions would result in the relocation or redesign of proposed ROWs and would increase management efforts and costs related to proposals submitted by ROW applicants, which are administered by the lands and realty program.

Under this alternative, areas managed as exclusion areas for ROWs would decrease to 6% of the planning area (225,784 acres) and areas managed as avoidance areas for ROWs would decrease to less than 1% of the planning area (31,018 acres), as compared with Alternative A. This would increase the potential areas for ROW designations and the requests for ROW authorizations, increasing the intensity, complexity, and costs of managing the lands and realty program.

Impacts on lands and realty management resulting from processing land tenure/landownership adjustments would be similar to Alternative A, except that aquatic, wetland, and riparian habitat would be suitable for disposal under this alternative. This may enhance the ability to dispose of or acquire (through exchange) land parcels in an effort to reduce fragmented surface ownership and improve the manageability of public lands.

Impacts on lands and realty management resulting from oil and gas exploration and development within the planning area would be similar to those identified in Alternative A, except more areas would be available for

leasing and development of oil and gas facilities. Under this alternative 225,782 acres would be unavailable to oil and gas leasing, 15,542 acres would be managed as NSO areas, and 215,890 acres would be managed as CSU areas. As a result, more acres are available for oil and gas development.

Impacts on lands and realty management resulting from development of solid leasable minerals, locatable minerals, and mineral materials would be similar to those identified in Alternative A, except the level of development would likely increase as areas closed to such development would be less under this alternative. Because the number of ROW applications/authorizations and extent of related development would be commensurate with the level of anticipated mineral development, an increase in ROW applications and authorizations would be realized. Under this alternative, 226,219 acres would be closed to coal leasing and development, 225,965 acres would be closed to oil shale leasing, 234,961 acres would be proposed for withdrawal from locatable mineral entry, and 226,421 acres would be closed to mineral material sales and permits. These impacts would be exacerbated by the anticipated increase in requests for ROW authorizations, which would increase the intensity, complexity, and costs of managing the lands and realty program.

Impacts on lands and realty from recreation management and transportation planning and access would be similar to those described under Alternative A, except that surface disturbing activities would be allowed within ¼ mile of developed recreation sites decreasing the intensity, complexity and costs of managing lands and realty program actions in these areas.

Impacts from VRM would be similar to those under Alternative A, except VRM classifications would affect the location of new ROWs and facilities. ROW projects would be designed to meet the objectives of the VRM class established for the project area. Most ROWs and facilities would be compatible with VRM Class III (395,683 acres) and VRM Class IV (2,374,706 acres). In VRM Class II (607,899 acres) areas, ROW actions would be limited and would require mitigation to ensure that the project or surface disturbance did not attract the attention of the casual observer. Compliance with VRM classifications in project areas would be less restrictive than Alternative A and increase the requests for ROW authorizations, impacting the intensity and costs to the lands and realty program.

Similar to Alternative A, mitigation measures to protect wildlife resources, threatened and endangered species, and sensitive species' habitats would impact the potential disposal of lands. Seasonal closures would result in short-term impacts on lands and realty actions in sensitive areas such as the big game crucial winter range. Year-round restrictions and no surface-disturbing activities in areas such as sensitive aquatic and critical habitats would restrict the location of ROWs and land disposal actions over the long term.

Impacts to lands and realty from the management of SD/MAs would be similar to Alternative A, except under this alternative, there would be no ACECs managed as ROW avoidance nor exclusion areas. Management of SD/MAs would therefore be less restrictive and would allow for an increase in requests for ROW authorizations, increasing the intensity, complexity, and costs of managing the lands and realty program.

## 4.19.3 Alternative D

Impacts on lands and realty from management of cultural and paleontological resources would be the same as Alternative A.

Impacts on lands and realty management from implementing actions for the lands and realty program would be similar to those presented under Alternative A, except decreases in ROW exclusion areas would enhance the ability to develop ROWs. Under Alternative D, 286,289 acres would be designated as ROW exclusion areas (Table 2-10 in Appendix V, Map 2-29), which represents a 33% decrease compared with Alternative A. In these areas, the development of ROW facilities would not be allowed. More acres would be managed under ROW avoidance areas, 1,388,618 acres, compared to 736,138 acres under Alternative A. ROW development would be allowed to

occur in these areas provided that site specific mitigation measures are followed. This would increase management efforts and costs related to proposals submitted by ROW applicants, which are administered by the lands and realty program but may be offset with the increased avoidance.

Impacts on lands and realty management resulting from oil and gas exploration and development within the planning area would be similar to those identified in Alternative A, except the projected level of ROW applications would increase. More areas would be available for leasing and development of oil and gas facilities because 768,989 acres would be unavailable to oil and gas leasing (42% increase compared with Alternative A) (Table 2-4 in Appendix V, Map 2-9). As a result, more acres are available for oil and gas development, which would commensurately increase the demand for ROW development.

Impacts on lands and realty management resulting from the development of solid leasable minerals would be similar to those identified in Alternative A, except the level of development would likely increase as fewer areas would be closed to such development. Because the number of ROW applications/authorizations and extent of related development would be commensurate with the level of anticipated mineral development, an increase in ROW applications and authorizations would be realized. Under this alternative, 610,342 acres would be closed to coal leasing (26% increase compared to Alternative A) and 1,557,520 acres would be closed to oil shale leasing (114% increase compared to Alternative A) (Table 2-7 in Appendix V, Map 2-14).

Impacts on lands and realty management resulting from the development of locatable and saleable minerals would be similar to those identified in Alternative A, except the level of ROW development would likely increase as more areas would be available to saleable mineral development. Because the number of ROW applications/authorizations and extent of related development would be commensurate with the level of anticipated mineral development, an increase in ROW applications and authorizations would be realized. Under this alternative, 362,009 acres would be closed to saleable mineral development (57% decrease compared to Alternative A) (Table 2-8 in Appendix V, Map 2-19).

Impacts on lands and realty from recreation management and transportation planning and access would be similar to those described under Alternative A, except that the Wind River Front SRMA would change from ROW exclusion to avoidance to accommodate recreation facilities and access.

Impacts from VRM would be similar to those under Alternative A, except changes in VRM classifications would affect the location of new ROWs and facilities. ROW projects would be designed to meet the objectives of the VRM class established for the project area. Most ROWs and facilities would be compatible with VRM Class III (738,311 acres) and VRM Class IV (1,455,234 acres) objectives. In VRM Class II (1,178,718 acres) areas, ROW actions would be limited and would require mitigation to ensure that the project or surface disturbance did not attract the attention of the casual observer.

Similar to Alternative A, mitigation measures to protect wildlife resources, threatened and endangered species, and sensitive species' habitats would impact the potential disposal of lands. Seasonal closures would result in short-term impacts on lands and realty actions in sensitive areas such as big game crucial winter range. Year-round restrictions and no surface disturbing activities in areas such as sensitive aquatic and critical habitats would restrict the location of ROWs and land disposal actions over the long term.

Impacts on lands and realty management from SD/MAs would be similar to Alternative A, except they would apply over a larger area, as the number of acres designated as ACECs would decrease. Because these areas are managed as ROW exclusion and avoidance areas, the reduction of ACEC designations would decrease the relocation or redesign of proposed ROWs and thereby decrease lands and realty management efforts and related costs. The acres designated as ACECs would decrease to 246,634 acres (14% decrease compared with Alternative A) (Table 2-12 in Appendix V, Map 2-39).

## 4.19.4 Proposed RMP

Under the Proposed RMP, impacts on lands and realty from management actions related to land tenure decisions would be similar to Alternative A. Impacts from the management of cultural and paleontological resources would be less than Alternative B, but more than Alternatives A, C, and D.

Impacts on lands and realty management from implementing actions for the lands and realty program would be similar to those presented under Alternative A, except that acres of ROW exclusion and ROW avoidance areas would be increased to 921,059 acres (116% increase compared with Alternative A) and 1,047,929 acres (42% increase compared with Alternative A), respectively (Table 2-10 in Appendix V). These limitations under the Proposed RMP would limit future ROW development within the planning area compared to the management actions described under Alternative A.

Impacts on lands and realty management resulting from oil and gas exploration and development within the planning area would be similar to those identified for Alternative A, except the projected level of ROW applications would likely decrease due to larger areas of closures and NSO restrictions under the Proposed RMP. Under the Proposed RMP, fewer areas would be available for leasing and development of oil and gas facilities because 1,076,039 acres would be unavailable to oil and gas leasing, 215,437 acres would be managed as NSO areas, and 1,116,266 acres would be managed as CSU areas. As a result, fewer acres are available for oil and gas development, which represents 987,978 fewer acres compared to Alternative A.

Impacts on lands and realty management resulting from the development of solid leasable minerals under the Proposed RMP would be similar to those identified for Alternative A, except the level of development would likely decrease, as more areas would be closed to such development. Because the number of ROW applications/authorizations and extent of related development would be commensurate with the level of anticipated mineral development, an increase in ROW applications and authorizations would be realized. Under this alternative, 766,880 acres would be closed to coal leasing (58% increase compared to Alternative A) and 1,115,490 acres would be closed to oil shale leasing (53% increase compared to Alternative A) (Table 2-7 in Appendix V).

Impacts on lands and realty management resulting from the development of locatable and saleable minerals with the Proposed RMP would be similar to those identified for Alternative A, except the level of ROW development would likely increase, as more areas would be available to saleable mineral development. Under the Proposed RMP, 884,906 acres would be closed to saleable mineral development (6% increase compared to Alternative A) (Table 2-8 in Appendix V, Map 2-20). Conversely, for locatable minerals, there would be a larger area of existing and proposed withdrawals compared to Alternative A, potentially reducing the level of ROW development associated with that type of development.

Impacts on lands and realty from recreation management and transportation planning and access under the Proposed RMP would be similar to those described under Alternatives A and D.

Impacts from VRM under the Proposed RMP would be similar to those under Alternative D, except changes in VRM classifications could affect the location of new ROWs and facilities. ROW projects would be designed to meet the objectives of the VRM class established for the project area. Most ROWs and facilities would be compatible with VRM Class III (149,413 acres) and VRM Class IV (1,929,258 acres) objectives. In VRM Class II (1,301,004 acres) areas, ROW actions would be limited and would require mitigation to ensure that the project or surface disturbance did not attract the attention of the casual observer.

Similar to Alternative A, under the Proposed RMP mitigation measures to protect wildlife resources, threatened and endangered species, and sensitive species' habitats would impact the potential disposal of lands. Seasonal closures would result in short-term impacts on lands and realty actions in sensitive areas such as big game crucial

winter range. Year-round restrictions and no surface-disturbing activities in areas such as sensitive aquatic and critical habitats would restrict the location of ROWs and land disposal actions over the long term.

Impacts on lands and realty management from special designation areas under the Proposed RMP would be similar to those described for Alternative A and B, except the number of acres designated as these areas would vary. Notably, the acres designated as ACECs under the Proposed RMP would be 935,135 acres (a 42% decrease compared with Alternative B). Because these areas are typically managed as ROW exclusion and avoidance areas, the reduction of special designation areas would decrease the relocation or redesign of proposed ROWs and thereby decrease lands and realty management efforts and related costs (Table 2-12 in Appendix V, Map 2-40).

# 4.20 RENEWABLE ENERGY

## 4.20.1 Alternative B

Under this alternative, impacts on renewable energy resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for riparian and wetland resources, livestock grazing, and OHV travel, locatable minerals, solid leasable minerals, and saleable minerals.

Impacts to renewable energy development from the management of wildland fire, grassland and shrubland resources, invasive species and pests would be the same as Alternative A.

Impacts to renewable energy resources from the management of air resources would be the same as those discussed under Alternative A, except dust abatement measures would be more restrictive. They would be required for all BLM authorized activities, and BMPs would have to be applied in coordination with local and state agencies to control dust on roads. These dust abatement measures would require renewable energy development sites to perform additional control activities and could restrict available vehicle routes.

Impacts to renewable energy resources from the management of soil and geologic resources would be similar to those discussed under Alternative A, except surface disturbing activities where soils are highly erodible or that are difficult to reclaim would be prohibited. Those areas would also be managed as NSO for fluid minerals (e.g., oil and gas leasing/development). Exploration and development of geothermal resources are subject to application of mitigation requirements for surface disturbing activities and NSO designations in the same manner as they are applied to oil and gas exploration and development activities. Actions to prohibit or limit surface disturbing activities to maintain soil stability, could impose the same restrictions to renewable energy development sites in the planning area. These restrictions could potentially impact access to development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and the site preparation and construction activities associated with renewable energy development.

Impacts to renewable energy resources from the management of water resources would be similar to those discussed under Alternative A, except that greater surface disturbing protections are provided by the requirement for site-specific activity and implementation plans. This alternative also expands the boundaries in the JMH planning area for prohibited surface disturbing activities, avoidance of linear crossings, required management as NSO for fluid minerals (e.g., oil and gas leasing/development) and applying a CSU for fluid minerals stipulation on the area's aquifer recharge areas. An NSO for fluid minerals stipulation for the Town of Superior aquifer recharge area is also provided by this alternative. Activity and implementation plans designed for water quality enhancement could be imposed on renewable energy development sites in the planning area. These restrictions could potentially impact access to development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and the site preparation and construction activities associated with renewable energy development.

Managing all lands identified as having wilderness characteristics specifically to preserve those characteristics would provide additional restrictions on renewable energy development in the planning area. Management actions to limit surface disturbing activities, surface occupancy, and degradation of view shed or setting impacts, help preserve wilderness characteristics (e.g., habitat quality) and help maintain the designation of lands with wilderness characteristics. Under Alternative B, closing lands identified with wilderness characteristics to fluid minerals (e.g., oil and gas) development, and management as an exclusion area for all new ROWs, would further restrict surface occupancy and surface disturbing activities. These areas would also be managed consistent with VRM Class II objectives. Wind and solar energy developments have high potentials to impact VRM objectives in the planning area due to the size and extent of the structures associated with them. Geothermal resource exploration, development, and leasing activities are not allowed in areas that are closed to oil and gas leasing consideration; and are also subject to application of mitigation requirements for surface disturbing activities and other stipulations in the same manner as they are applied to oil and gas exploration and development activities. Management actions to preserve and protect lands with wilderness characteristics could potentially impact access to renewable energy development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and the site preparation and construction activities associated with renewable energy development.

Impacts to renewable energy development from the management of fluid mineral (oil and gas) leasing and development would be similar to those described under Alternative A; however, closing 2,186,218 acres (1,646,197 more acres than under Alternative A) to fluid mineral leasing would greatly reduce the availability of potential development sites. Geothermal resource exploration, development, and leasing activities are not allowed in areas that are closed to oil and gas leasing consideration; and are also subject to application of restrictions on surface disturbing activities, NSOs, and other stipulations in the same manner as they are applied to oil and gas exploration and development activities. Under Alternative B, 813,354 acres would be managed with NSO stipulations, which is 654,743 more acres than under Alternative A. Applying CSU stipulations (within 99,674 acres, which is 621,458 less than Alternative A) and TLSs (within 713,837 acres, which is 1,127,130 less than Alternative A) with no exceptions, could influence the placement of facilities and, as a result, increase the cost of developing geothermal resources. More NSOs applied under this alternative, would place greater limitations on surface occupancy and further restrict geothermal development that quantify and visually define these management areas). The requirement to use BMPs in the exploration, development, production, and abandonment of oil and gas resources, and mitigation requirements for surface disturbing activities also could place additional restrictions on geothermal energy developments. Development restrictions for WSA, ACECs, Special Designation Areas, and other resource program restrictions for sites within this analysis area would prohibit or restrict geothermal energy developments.

Impacts to renewable energy development from the management of forests and woodlands is the same as Alternative A, except that slash resulting from timber harvesting would be made available for biomass. Woody biomass is a potential fuel for bioenergy developments. Resources adequate for sustained commercial production, transportation distances to biofuel energy generation plants and/or markets and consumers are key factors in determining feasibility for biomass utilization. There are not currently any applications for biomass energy development projects being processed by the BLM for the planning area but making biomass available from this forest management action supports the consideration of this type of alternative energy development.

Impacts to renewable energy development from the management of fish and wildlife resources and special status species is similar to Alternative A, except this alternative applies more surface use prohibitions or restrictions, seasonal and distance limitations, and rehabilitation standards on fluid mineral (oil, gas, and geothermal), renewable energy, and ROW developments in its management actions. Surface use restrictions would be utilized to accomplish no-net-loss of sensitive terrestrial and aquatic wildlife habitats (e.g., crucial winter range, parturition areas, migration corridor, and special status species nesting and brood rearing habitat). The land use, time and distance, and travel prohibitions and restrictions under this alternative could potentially limit access to development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and site

preparation and construction activities associated with renewable energy development. There is also a potential for operational restrictions. Structural design changes and incorporation of additional protective measures (e.g., wildlife collision avoidance enhancements) require additional costs. Future renewable energy projects could require additional impact minimization measures as impacts become known and better understood. Prohibiting renewable energy projects in big game crucial winter range and parturition habitat, raptor concentration areas, currently mapped unique habitats, or new areas identified as part of site-specific investigations would preclude renewable energy development.

Impacts to renewable energy development from the management of cultural and paleontological resources is similar to Alternative A, except this alternative applies more protective measures. The land use prohibitions and restrictions and larger sized buffer zones under this alternative, could potentially limit access to development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development. Wind turbine structures could be especially intrusive in certain view sheds that contribute to cultural, historical, or paleontological setting.

Impacts to renewable energy development from the management of areas of tribal importance (sacred, spiritual, respected, and/or traditional cultural settings, properties, or resources) would be similar to Alternative A, except in the JMH planning area, the zone of disturbance protection is more specific than Alternative A because the mitigation stipulations are triggered when an activity is proposed within three miles of a site (rather than as within the "vicinity" of a site). Mitigation requirements can result in additional efforts, delays, and costs to renewable energy development projects.

VRM impacts would be similar to Alternative A, except that the VRM acreage offering the most protected status to scenic value quality and preservation of public land in its natural condition is greater under this alternative. Approximately 225,785 acres would be classified as VRM Class I (68 more acres than Alternative A), 2,148,902 acres VRM Class II (1,566,230 more acres than Alternative A), 666,522 acres VRM Class III (51,030 more acres than Alternative A) and 563,754 acres as VRM Class IV (1,616,669 fewer acres than Alternative A). More acreage managed under the lower VRM classifications, potential prohibitions on surface disturbing activities associated with wind energy development, and larger VRM buffer distances along the Continental Divide National Scenic Trail would place greater limitations to renewable energy development projects, by restricting the availability and access of development sites and the site clearing/preparation/construction activities (roads, facilities, structures, and transmission/pipelines) necessary for the generation, collection, and transport of the energy. Wind and solar energy developments also have high potentials to impact VRM objectives in the planning area due to visual intrusions inherent in the size and extent of the structures associated with those types of developments. Requirements for visual simulation and VRM classification analyses prior to site developments could incur additional delays and costs to proposed renewable energy developments.

Applying greater restrictions (e.g., more ROW exclusion areas, restricting NHT utility crossings) and utilization of BMPs (e.g., locating pipelines, power lines and other utilities adjacent to or co-located within existing ROWs) as part of lands and realty management would place additional restrictions on renewable energy developments. This Alternative provides for maximum protection of crucial habitats and sensitive resources in ROWs and corridors. The greater restrictions, prohibitions, and protection stipulations under this Alternative, could potentially limit access to development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development.

The management actions for renewable energy development under this alternative are similar to Alternative A, except ROW exclusion areas would be greater (2,480,876 acres excluded, which is 2,054,167 more acres than Alternative A); and additional measures and BMPs could be identified and required to protect resources and resource uses. The greater restrictions, prohibitions, and protection stipulations under this Alternative, could potentially limit access to development sites, the placement of facilities, structures, and transmission/pipelines,

and site preparation and construction activities associated with renewable energy development. ROW exclusion areas would preclude renewable energy development. Additional development and operations costs could result from added BMPs/measures.

The actions to designate and manage travel in the planning area would be similar to Alternative A, except additional back country byways would be considered. The land use and VRM restrictions and mitigation requirements that could be applied to byway road developments could impact the placement of facilities, structures, and transmission/pipelines associated with renewable energy developments. These actions could restrict renewable energy development.

The actions to manage recreation would be similar to Alternative A, except the Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, Killpecker Sand Dunes, Oregon and Mormon Pioneer National Historic Trails, and the Wind River Front SRMAs would not be retained and a greater zone of restriction against surface disturbing activities and visual intrusions would be implemented. The greater restrictions on surface disturbing activities, and stricter VRM classifications, under this Alternative, could potentially limit access to development sites, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development. Not retaining the SRMAs and releasing lands from an emphasis on recreation resource development could potentially facilitate renewable energy development in those areas.

Management actions to protect congressionally designated and/or eligible trails, and NHTs are similar to Alternative A, except there are greater protective measures proposed such as larger buffer zones ("setbacks") and specific closures and restrictions. The greater restrictions on surface disturbing activities, and stricter VRM classifications, under this Alternative, could potentially limit access to development sites, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development.

Management of WSAs and WSR public lands would have actions similar to Alternative A, but there would be a greater emphasis on protecting wilderness setting and view shed values. The greater restrictions, prohibitions, and protection stipulations under this Alternative, could potentially limit access to development sites, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development. ROW exclusion areas would preclude renewable energy development. Prohibitions and limitations on motorized and non-motorized travel would also place greater impacts on renewable energy developments.

Impacts to renewable energy resources from the management of ACECs would be similar to those described in Alternative A, except 1,605,660 acres (1,319,210 more than Alternative A) would be designated as ACECs. This alternative emphasizes managing important habitats for no-net-loss of habitat, retaining habitat health and function by applying surface use restrictions, and addressing human access and activities that could degrade or destroy resources. Additional stipulations to individual ACECs (e.g., eliminating ROW windows, excluding ROWs, limiting road development, closing areas to mineral development, etc.) would provide greater restrictions on surface disturbances and occupancy. The greater restrictions on surface disturbing activities, additional ACEC stipulations, and stricter VRM classifications under this Alternative, could potentially limit access to development sites, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development.

## 4.20.2 Alternative C

Under this alternative, impacts on renewable energy resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for riparian and wetland resources, livestock grazing, and OHV travel, locatable minerals, solid leasable minerals, and saleable minerals.

Impacts to renewable energy resources from the management of air resources, forests and woodlands, wildland fire, grassland and shrubland resources, invasive species and pests would be the same as those presented under Alternative A.

Soil and geologic resource management actions under this alternative would be the same as Alternative A, except that areas where soils are difficult to reclaim would be managed as avoidance areas for surface disturbing activities with no exceptions and with a CSU stipulation for fluid minerals (oil and gas) leasing. Exploration and development of geothermal resources are subject to application of mitigation requirements for surface disturbing activities and CSU designations in the same manner as they are applied to oil and gas exploration and development activities. These restrictions could limit renewable energy development at these limited reclamation potential soil sites.

Water resource management actions would be similar to Alternative A, except where surface disturbing activities (including linear crossings) in or near the 100-year floodplains, wetlands, riparian areas, and gorges would each be considered on a case-by-case basis (rather than be protected by a full closure stipulation). Relaxing full closure stipulations facilitates the allowance of some surface disturbing activities. Compared to Alternative B, considering closed loop drilling systems in areas of shallow unconfined aquifers would also potentially increase allowances for some surface disturbing and occupancy activities. The less restrictive stipulation on surface disturbing activities under this alternative, could improve renewable energy development potentials.

There are no actions proposed under Alternative A for managing lands with wilderness characteristics. The management measures proposed under Alternative B would not be implemented under this alternative. The impacts of not managing to protect wilderness characteristics would provide more opportunities for allowable surface disturbances and occupancy activities, which could benefit potential renewable energy developments.

Management of leasable oil and gas minerals includes geothermal fluids. Impacts to renewable energy development from the management of fluid mineral leasing and development would be similar to those described under Alternative A; however only closing 225,782 acres (314,239 fewer acres than under Alternative A) to fluid mineral leasing would increase the availability of potential renewable energy development sites. Under this alternative, 15,542 acres would be managed with NSO stipulations (143,069 fewer acres than under Alternative A) and 215,890 acres with CSU stipulations (505,242 fewer than Alternative A) which reduces these surface disturbance/occupancy limitations to development activities. Greater TLSs (1,355,485 acres, 485,482 less than Alternative A), could adversely impact renewable energy site development and operational schedules (Table 2-4 in Appendix V, Map 2-8). Mineral management actions that restrict fluid mineral developments (including geothermal energy developments) are those that prohibit or limit exploration, leasing, access to development sites, and the placement and construction of facilities or structures associated with the development. Under this Alternative, benefits could come from reducing the number of acres closed to development and/or managed under NSO and CSU stipulations.

Impacts to renewable energy development from the management of fish and wildlife resources and special status species is similar to Alternative A, except that smaller surface disturbing and/or surface use distance buffer zones would be applied around developments and operations. Those actions and allowing renewable energy projects in big game crucial winter range and parturition habitat, raptor concentration areas, and unique habitats under this Alternative could facilitate renewable energy developments in the planning area. Additionally, no limits on surface disturbing activities in potential habitat areas of special status plant species could also improve opportunities for renewable energy development in the planning area.

Impacts to renewable energy development from the management of cultural and paleontological resources is similar to Alternative A, except that smaller surface disturbing/view shed buffer zone distances and less restrictive land use stipulations would be applied around known cultural and paleontological sites. The view shed to be protected surrounding significant rock art sites at Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White

Mountain would be reduced to a ¼-mile distance (which is less than the ½ mile under Alternative A). Compared to Alternative A, significant rock art sites would also be an avoidance area rather than an exclusion area for new ROWs. The Blue Point, Blue Forest, Adobe Town Rim and Cedar Canyon areas of high cultural site density would be managed on an individual site level (rather than as historic districts under Alternative A); and closed to surface disturbing activities that could adversely affect the cultural resources unless they could be mitigated. Those sites would also be managed as NSO for fluid minerals, and the Tri-Territory Marker site (10 acres) would be managed as closed to fluid mineral leasing, which apply greater restrictions on development activities than Alternative A.

Renewable energy development requires the ability to utilize specific land sites that have adequate wind, sunshine, biomass, or geothermal resources to support energy generation. Land use and visual impact restrictions also must not prohibit or restrict the surface disturbances and occupancy requirements associated with vehicle access to the site, site clearing/preparation activities, or the construction of facilities, structures, and transmission lines (including pipelines) necessary for the generation, collection, and transport of the energy. Wind turbine structures could be especially intrusive in certain view sheds that contribute to cultural, historical, or paleontological setting. Management actions under this Alternative that facilitate renewable energy developments are smaller buffer zones, and avoidance areas rather than exclusion areas for ROWs. Closing areas to surface disturbing activities and fluid mineral leasing (gas, oil, and geothermal), and managing sites as NSO for fluid minerals and avoidance of ROWs would provide greater restrictions to renewable energy development in those areas.

Impacts to renewable energy development from the management of areas of tribal importance (sacred, spiritual, respected, and/or traditional cultural settings, properties, or resources) would be similar to Alternative A; except that in the JMH planning area, the zone of disturbance protection is more specific than Alternative A because the mitigation stipulations are triggered when an activity is proposed within ¼ mile of a site (rather than as within the "vicinity" of a site). Renewable energy development requires surface disturbances associated with vehicle access to the site and site clearing/preparation activities; as well as the construction of facilities, structures, and transmission lines (including pipelines) necessary for the generation, collection, and transport of the energy. Mitigation requirements can result in additional efforts, delays, and costs to renewable energy development projects.

VRM impacts would be similar to Alternative A, except that the VRM acreage offering the most protected status to scenic value quality and preservation of public land in its natural condition is greater under this alternative. Approximately 226,629 acres would be classified as VRM Class I (912 more acres than Alternative A), 607,899 acres VRM Class II (25,227 more acres than Alternative A), 395,683 acres VRM Class III (219,809 fewer acres than Alternative A), and 2,374,706 acres as VRM Class IV (194,283 more than Alternative A). Management actions under this alternative that have the potential to limit renewable energy development in the planning area have more acres designated as low VRM classifications (VRM Class III and IV) and fewer acres under higher VRM classifications (VRM Class I and II). Fewer restrictions on surface disturbing activities; no required visual simulation or additional needs to determine VRM classifications in certain areas; and smaller VRM buffer distances along the Continental Divide National Scenic Trail reduce potential limitations to renewable energy development projects in the planning area.

This alternative provides for minimum protection of crucial habitats and sensitive resources in ROWs and corridors Additionally, BLM-administered public lands within the planning area would be available for agricultural entry under Desert Land Entry (43 Code of Federal Regulations [CFR] 2520). Renewable energy development requires the ability to utilize specific land sites that have adequate wind, sunshine, biomass, or geothermal resources to support energy generation. Fewer restrictions, prohibitions, and protection stipulations under this Alternative, could potentially facilitate access to development sites, vehicular routes, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development. Opening the planning area to agricultural entry could increase competition for available lands for renewable energy development.

The management actions for renewable energy development under this Alternative are similar to Alternative A, except ROW exclusion and avoidance areas would be fewer (225,784 acres excluded and 31,018 acres avoided; 200,925 and 705,120 fewer acres than Alternative A, respectively). Same as Alternative B, additional measures and BMPs could be identified and required to protect resources and resource uses. Fewer ROW exclusion and avoidance areas under this alternative, could potentially improve access to development sites, where the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development could occur. ROW exclusion and avoidance areas could preclude renewable energy development. Additional development and operations costs could result from added BMPs/measures.

The actions to designate and manage ROWs and transportation corridors in the planning area would be similar to Alternative A, except designated energy corridors would be retained; new corridors could be designated; and there would be no preferred location of ROWs within existing ROW areas and corridors. In total, 225,784 acres would be designated as exclusion for ROWs (200,924 fewer acres than Alternative A) and 31,018 acres would be designated as ROW avoidance areas (705,120 fewer than Alternative A). Fewer ROW exclusion and avoidance areas under this alternative, could potentially improve access to development sites, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development. Retaining and/or designating new corridors and reducing restrictions on the placement of ROWs supports the development of transmission/pipelines associated with renewable energy development. ROW exclusion areas would preclude renewable energy development.

The actions to designate and manage travel in the planning area would be similar to Alternative A, except five back country byways would not be retained and additional travel routes that meet the criteria for designation as back country byways would not be considered. The land use and VRM restrictions and mitigation requirements that could be applied to byway road developments could impact the placement of facilities, structures, and transmission/pipelines associated with renewable energy developments. The actions of not retaining existing back country byways or designating new ones under this alternative could potentially improve access to development sites where the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development could occur.

The actions to manage recreation would be similar to Alternative A, except fewer designated recreation areas would be retained, smaller restriction zones for surface disturbing activities would be implemented, and ROW development could occur in the 14 Mile Recreation Area. Overall, the fewer restrictions under this alternative, could potentially improve access to development sites where the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development could occur. The addition of VRM Class II management objectives to the western unit of the Wind River Front SRMA could add restrictions to renewable energy development projects by limiting surface disturbance activities and structures that impact view sheds and settings. A CSU for fluid minerals on the Continental Divide Snowmobile Trail would also place limitations on potential geothermal development sites.

Management actions to protect congressionally designated and/or eligible trails, and NHTs are similar to Alternative A, except that mineral leasing (with standard lease stipulations) and new ROWs could potentially be allowed along (not directly on) the intact road or trail segments of the Overland and Cherokee Trails, Point of Rocks to South Pass Road, and other Expansion Era roads and trails. The fewer restrictions on surface use and surface disturbing activities, and smaller visual impact zones under this alternative, could potentially improve access to development sites where the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development could occur. Same as Alternative B, contributing segments of NHTs would not be available for use as industrial access roads (e.g., fluid mineral drilling access roads, or as haul roads for heavy truck traffic); and the view shed in checkerboard areas of land ownership (federal and non-federal) would be managed to preserve the existing character of the landscape to the extent possible. These actions would impose some limitations on renewable energy developments.

Management of WSAs and WSR public lands would have actions similar to Alternative A, but there would be a greater emphasis on managing designated areas for multiple use. Under this alternative, the Sweetwater River designation would not be retained, so no WSR management actions would be developed or applied. No management actions on this resource could potentially improve access to development sites where the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development could occur.

Under this alternative, no ACECs would be retained (as compared to them all being retained under Alternative A).

Removing all the ACEC-specific land use, VRM, and surface disturbing restrictions under this alternative could potentially improve access to development sites where the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development could occur. Actions that could place some restrictions on renewable energy developments could be through the application of surface use restrictions and seasonal limitations in sensitive wildlife habitats (e.g., crucial winter range, parturition areas, migration corridor, and special status species nesting and brood rearing habitat).

### 4.20.3 Alternative D

Under this alternative, impacts on renewable energy resources would not be anticipated or would result in negligible impacts as a result of implementing management actions for locatable minerals, solid leasable minerals, saleable minerals, livestock grazing, and OHV travel.

Impacts on renewable energy development from managing water resources, wildland fire, forests and woodlands, vegetation, fish and wildlife, special status species, cultural and paleontological resources, travel and transportation resources, and recreation would be the same as Alternative A.

Impacts on renewable energy resources from implementing soil management actions would be similar to those identified under Alternative A. Areas with limited reclamation potential soils (those with limited reclamation potential as per the NRCS soil rating) would be designated avoidance areas for surface disturbing activities, which would restrict activities related to renewable energy development and maintenance. In addition, under this alternative, an operator must submit an approved mitigation plan before a proposed project on limited reclamation potential soils will be approved. Avoiding areas with limited reclamation potential soils and requiring mitigation plans could preclude renewable energy development in some areas, require that some projects be redesigned and reduced in size, and result in reduced development across the planning area.

Under Alternative D, lands with wilderness characteristics would be managed for multiple use or with existing management, such as ACECs. Similar to Alternative B, the management could reduce renewable energy development activities, but to a far lesser degree than under Alternative B. Renewable energy development activities could occur within these areas, but could preclude some development projects, result in project relocation, or cause projects to be scaled back to help protect wilderness characteristics.

Impacts on renewable energy development from the management of fluid mineral leasing and development would be similar to those described under Alternative A, except additional restrictions on fluid mineral leasing could result in reduced development of geothermal resources. Geothermal resource development activities are subject to the same restrictions applied to fluid mineral leasing and development. Under Alternative D, 768,989 acres would be closed to oil and gas leasing (228,968 more acres than under Alternative A), which would increase the availability of geothermal development activities and could result in more energy production from geothermal resources compared with Alternative A.

Impacts on renewable energy development from managing visual resources would be similar to those presented under Alternative A, except more restrictive VRM classifications would be applied to a larger area, which would restrict the ability to develop renewable energy resources. Approximately 1,178,718 acres would be classified as VRM Class II (596,046 more acres than under Alternative A) and 1,455,234 acres would be classified as VRM Class IV (725,189 fewer acres than under Alternative A). Managing development on the landscape to be consistent with increased VRM Class II areas and decreased VRM Class IV areas could result in decreased development or require that renewable energy projects be redesigned to maintain consistency with VRM class objectives, which could lead to additional project costs and delays. This would be especially true for wind and solar energy developments, as these projects have high potential to impact visual resources due to the visual intrusions associated with the structures used for such energy production.

Impacts to renewable energy development from implementing actions for lands and realty management would be similar to those presented under Alternative A, except a significant increase in ROW exclusion areas would prohibit renewable energy development across a larger area. Approximately 286,289 acres would be managed as ROW exclusion areas (140,420 fewer acres than under Alternative A) As a result, renewable energy development would be precluded within the exclusion areas, which would likely reduce overall renewable energy development across the planning area. ROW avoidance areas could potentially limit access to development sites, the placement of facilities, structures, and transmission/pipelines, and site preparation and construction activities associated with renewable energy development.

Impacts on renewable energy development from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a larger area and thereby further restrict the ability to develop renewable energy sources. Surface disturbance restrictions and ROW exclusion and avoidance areas designed to protect important historic, cultural, wildlife, and scenic values across additional and expanded ACECs would preclude or restrict the placement of facilities associated with renewable energy. The acres designated as ACECs would decrease to 246,634 acres, which represents a 14% decrease compared with Alternative A.

## 4.20.4 Proposed RMP

Impacts on renewable energy from management actions related to air quality, water resources, vegetative communities, wildlife and fisheries, special status species, wild horses, wildland fire ecology and management, cultural and paleontological resources, livestock grazing, OHV travel, and forests and woodlands would be the same as under Alternative A. As noted under Alternative A, management actions for locatable, geophysical, solid mineral leasing and saleable mineral exploration and development would not impact renewable energy development.

Impacts on renewable energy resources from implementing soil management actions would be similar to those identified under Alternative A, except that, consistent with Alternative D, areas with limited reclamation potential soils (i.e., as per the NRCS soil rating) would be designated avoidance areas for surface disturbing activities, which would restrict activities related to renewable energy development and maintenance.

Impacts from managing lands with wilderness characteristics would be similar to Alternative D, except that more of these areas would be managed in accordance with other overlapping special designations and management uses (36% increase compared to Alternative D), which could preclude some development projects, result in project relocation, or cause projects to be scaled back to a greater degree under the Proposed RMP.

Impacts on renewable energy development from the management of fluid mineral leasing and development would be similar to those described under Alternative A, except that additional restrictions on fluid mineral leasing could result in reduced development of geothermal resources. Under the Proposed RMP, 1,076,039 acres would be closed to fluid mineral leasing (99% increase compared to Alternative A), which would decrease the availability

of geothermal development activities and could result in more energy production from geothermal resources, compared with Alternative A.

Impacts on renewable energy development from managing visual resources would be similar to those presented under Alternative A; more acres would be managed as VRM Class II and fewer acres would be managed as VRM Class IV, which would restrict the ability to develop renewable energy resources. In general, impacts on renewable energy development from managing visual resources would be more restrictive than Alternatives A, C, and D, but less restrictive than Alternative B. Approximately 1,301,004 acres would be classified as VRM Class II (718,332 more acres than Alternative A) and 1,929,258 acres as VRM Class IV (251,165 fewer acres than Alternative A). Managing development on the landscape to be consistent with increased VRM Class II areas could result in decreased development or require that renewable energy projects be redesigned to maintain consistency with VRM class objectives, which could lead to additional project costs and delays.

Impacts on renewable energy development from implementing actions for lands and realty management would be similar to those presented under Alternative A, except that an increase in ROW exclusion areas would prohibit renewable energy development across a larger area. Under the Proposed RMP approximately 921,059 acres would be managed as ROW exclusion areas (116% increase compared to Alternative A). As a result, renewable energy development would be precluded within the exclusion areas, which would likely reduce overall renewable energy development across the planning area. Additionally, under the Proposed RMP, 1,047,929 acres would be managed as ROW avoidance areas (42% increase compared with Alternative A). Increased acreage of ROW avoidance areas could potentially limit access to development sites, the placement of facilities, structures, and transmission lines, and site preparation and construction activities associated with renewable energy development.

Impacts on renewable energy development from managing special designation areas would be similar to those presented under Alternative A, except they would occur over a larger area, and thereby further restrict the ability to develop renewable energy sources. The acres designated in 12 ACECs under the Proposed RMP would increase to 935,135 acres (226% increase compared with 10 ACECs under Alternative A). Surface disturbance restrictions and ROW exclusion and avoidance areas designed to protect important historic, cultural, wildlife, and scenic values across additional and expanded ACECs would preclude or restrict the placement of facilities associated with renewable energy.

## 4.21 SPECIAL DESIGNATIONS

Special designations are identified and managed to protect the important historic, cultural, wilderness, wildlife, vegetation, soil, or watershed values for which these areas were designated. Therefore, potential impacts on special designations within the planning area are analyzed throughout Chapter 4 under the sections that address impacts on these resource values. For analyses on these values, refer to those appropriate sections in this chapter and Appendix C. The analysis below in this section only addresses changes to the boundaries of special designations, as those would have a direct impact on the ability to protect the resource values for which these areas were designated.

National Scenic and Historic Trails special designations are also identified in the analysis below, in this section and throughout Chapter 4 alternatives.

### 4.21.1 Alternative B

The potential impacts to special designations would be the same as those presented under Alternative A, except they would occur over a larger area for ACECs and management areas and thereby offer greater protections to important historic, cultural, wildlife, and scenic values in these areas. The acres designated as ACECs would increase greatly to 1,605,660 acres (460% increase) and extend to 16 ACECs compared with Alternative A (Table

2-12 in Appendix V, Map 2-37). The areas designated as management areas would decrease to 183,938 acres (68% decrease), compared with Alternative A. This is because many of the existing management areas would be designated as ACECs under this alternative, which would increase the level of protection to important historic, cultural, wildlife, and scenic values in these areas. The potential impacts to WSAs and WSRs would be the same as those presented under Alternative A.

## 4.21.2 Alternative C

The potential impacts to WSAs would be the same as those presented under Alternative A. The impacts on all other special designations discussed under Alternative A above would not occur, as the designations for ACECs, management areas, and WSRs would be eliminated under Alternative C.

## 4.21.3 Alternative D

The potential impacts to special designations would be the same as those presented under Alternative A, except they would occur over a smaller area for ACECs and other management areas (Table 2-12 in Appendix V, Map 2-39) and thereby offer fewer protections to important historic, cultural, wildlife, and scenic values in these areas. The acres designated as ACECs would decrease to 246,634 acres, which represents a 14% decrease compared with Alternative A. The areas designated as management areas would decrease to 312,980 acres (46% decrease compared with Alternative A). The potential impacts to WSAs and WSRs would be the same as those presented under Alternative A.

## 4.21.4 Proposed RMP

The Proposed RMP is a combination of management actions primarily from Alternatives B and D and would have similar impacts as previously described under these alternatives. The potential impacts on special designations would be the same as those presented under Alternative A, except they would occur over a larger area for ACECs and with a reduction in management areas. Several existing management areas would be included in the expanded Steamboat ACEC under the Proposed RMP.

The acres designated in 12 ACECs under the Proposed RMP would increase to 935,135 acres (226% increase in acres compared with 10 ACECs under Alternative A). Conversely, the Proposed RMP would designate 670,525 fewer acres than Alternative B. The Monument Valley ACEC and Cedar Canyon ACEC would be removed due to their checkboard land ownership. However, the important rock sites within Cedar Canyon would still be protected through application of other management decisions. Under the Proposed RMP, the Greater Red Creek ACEC (renamed Little Mountain ACEC) would be the same as under Alternative A but greatly reduced from the proposed expansions under Alternative B. Under the Proposed RMP, the Special Status Plant Species ACEC would add 3,269 acres compared with Alternative A and an additional 859 acres compared with Alternative B to include newly discovered plant populations. The Big Game Migration ACEC would be removed, but this area would be managed within the expanded Steamboat ACEC with CSU stipulations for fluid minerals. A specific HMP will be developed for big game migration under the Proposed RMP to protect wildlife values while still providing for multiple uses. Under the Proposed RMP, the current Red Lake and East Sand Dunes ACECs would be maintained as WSAs.

Under the Proposed RMP, management areas would be reduced and subject to multiple-use management activities that could allow surface-disturbing activities subject to mitigation compared with Alternative A. The Red Desert Watershed Management Area would be removed; however, approximately half of this management area (western unit) would be incorporated into the expanded Steamboat ACEC along with the West Sand Dunes Archaeological District, Steamboat Mountain, and Pinnacles Geographic management areas and these areas would follow that ACEC's management direction to preserve relevance and importance values. The eastern portion of the Red Desert

Watershed Management Area would be open to multiple uses without special designation management. The Pine Mountain and Sugarloaf Basin Management Areas and their management of sensitive resources would be the same as described under Alternative A.

The potential impacts to WSAs and WSRs would be the same as those presented under Alternative A.

# 4.22 SOCIOECONOMICS

This analysis mainly addresses impacts in the socioeconomic study area. As explained in the Socioeconomic Baseline Report (BLM 2013), this is the area most strongly linked economically and socially to BLM-administered lands and resources in the RSFO. The study area consists of all of Fremont, Lincoln, Sublette, Sweetwater, and Uinta counties. Where appropriate, the analysis identifies impacts that would occur beyond the boundaries of the socioeconomic study area.

Note that in economic and social analyses, the term "impact" refers to a change in the social or economic environment and does not imply whether these changes are positive or negative outcomes. The "direction" of the impact should be clear from the context but may also vary depending on the perspective of the reader. For instance, generation of jobs and income within the study area is considered by most people who live in the area to be a positive effect. Social impacts may be judged differently by different stakeholders. For instance, stakeholders who tend to view natural resource development as essential to their communities may view rapid oil and gas development as aligned with their personal and community interests, while others who tend to favor conservation may feel it is contrary to their or their community's interests.

Some socioeconomic impacts are addressed quantitatively below. Many impacts, including both economic and social impacts, can only be addressed qualitatively given the available data and information.

## 4.22.1 Methods of Analysis

### Market Values Economic Impact Analysis

The socioeconomic analysis relies on quantitative and qualitative discussions to convey potential impacts of management actions under each alternative.

#### Quantitative Economic Impact Analysis

A quantitative economic analysis approach was used when possible given adequate available information and resources. In this EIS, adequate data was available for five resource uses: livestock grazing, oil and gas development and production, coal production, trona (soda ash) production, and recreation. The coal and trona ash analyses were conducted separately, based on available data for each industry, but the results were combined for presentation in this EIS to protect potentially proprietary data given the small number of operators in each industry. The economic analysis examines changes in economic activity and is not a cost-benefit analysis. Please reference the 2013 RSFO Socioeconomic Baseline Report for a comprehensive analysis of additional socioeconomic impacts associated with the management area that are not otherwise discussed in this section.

The basic strategy used was to first identify how management actions under the alternatives may affect resource use levels, and then to monetize the direct impacts associated with these changes. For instance, direct impacts include expenditures made by oil and gas companies to drill a well and to complete the well for production. Direct impacts also include the value of the oil and gas that is produced and sold. Direct impacts were estimated based on anticipated levels of resource use (e.g., number of wells drilled, number of recreation visits) for each alternative.

Next, direct impacts were run through a customized input-output model to estimate the total amount of economic activity that would be generated as the direct impact ripples through the regional economy. Total impacts include the indirect economic activity stimulated by directly affected industries purchasing goods and services that are necessary inputs to production, and as labor income generated from production is spent by the households that receive the income.

The total effects were estimated in this EIS through use of the IMPLAN (IMpact analysis for PLANning) model.[1] The IMPLAN model was originally developed by the Forest Service and is commonly used by the BLM and many other government and private sector organizations to estimate the total economic impacts of various activities, actions, and policies. The model tracks inter-industry and consumer spending in a local or regional economy, allowing estimation of "indirect" and "induced" economic impacts in the local economy that result from the original economic activity or a change in economic activity. Indirect impacts result from local inter-industry purchases caused by the direct impact. Induced impacts results from re-spending of labor income (i.e., local purchases by households of employees and proprietors of the affected industries). The re-spending represented by indirect and induced impacts is often referred to as the "multiplier effect."

Outputs of the IMPLAN model include employment, labor income, and gross regional economic output. It is important to note that IMPLAN, based on some of its data sources, does not distinguish between full-time and part-time jobs. Sectors with higher labor earnings per job are likely to reflect a high proportion of full-time jobs, while sectors with low labor earnings per job often reflect a significant number of part-time jobs.

The IMPLAN model uses data specific to the local economy wherever possible, but also uses some data based on national-level economic relationships. Therefore, the model benefits from "calibration" of some of its data to better reflect the local economy. For this study, IMPLAN was calibrated based on work the University of Wyoming has done with the model in Wyoming over many years, and with data specific to this study. The specific IMPLAN impact analysis methodology and assumptions for each resource use are described in general in subsections below, and in greater detail in Appendix N, Technical Report: Social and Economic Impact Analysis Methodology.

In addition to estimating employment, labor income, and gross regional economic output with the IMPLAN model, the quantitative economic impact analysis also estimated – using tax and royalty rates – the following public revenues that accrue to various governments:

- Mineral severance taxes on oil, gas, coal, and trona collected by the State of Wyoming. The state redistributes some severance tax revenue to local governments.
- Ad valorem taxes on oil, gas, coal, and trona, collected by the counties based on state assessments of the value of mineral production.

Selected tables in this chapter report the federal share and the state share of federal mineral royalties separately and report the mineral severance taxes and ad valorem taxes. Gross revenues are reported; subsequent distributions of the revenues were not estimated.

**Outputs from Bureau of Land Management-Administered Land**

To develop the direct economic impacts of resource uses on BLM-administered land, the BLM first estimated the annual level of resource use under each alternative. These use levels, or outputs, are readily quantifiable values such as AUMs of forage use, number of oil and gas wells drilled, tons of coal produced, number of recreation visits, etc. Table 4-36 summarizes the estimated outputs by alternative. For livestock grazing, oil and gas

[1] *An additional analysis using the REMI model was also conducted. See the "REMI Model Analysis" section below for further information.*

development, coal and soda ash production, and recreation, the BLM assumed that the level of use would be the same across every year of the study period, 2016–2031. This assumption was based on the available data. For oil and gas production, use levels and economic impact would increase in every year of the study period as additional wells come into production; the value in Table 4-36 is only for the first year of the study period, 2016. The following sections describe the basis for the annual estimates at a high level, and Appendix N, Technical Report: Social and Economic Impact Analysis Methodology, provides further detail.

## Table 4-36. Annual Activity / Outputs from Bureau of Land Management-Administered Land by Alternative

| -- | Alt. A | Alt. B | Alt. C | Alt. D |
|---|---|---|---|---|
| Livestock Grazing (AUMs – Billed Use)[1] | 147,631 | 147,631 | 147,631 | 147,631 |
| Livestock Grazing (AUMs – Total Authorized Use)[1,4] | 303,238 | 297,066 | 160,387 | 303,238 |
| Conventional Oil and Gas Wells Drilled[1] | 232.4 | 61.5 | 238.8 | 230.2 |
| CBNG Wells Drilled[1] | 6.2 | 3.0 | 7.2 | 6.7 |
| Crude Oil (bbls – 2016)[2] | 2,047,125 | 542,141 | 2,104,317 | 2,026,774 |
| Natural Gas (mcf – 2016)[2] | 82,824,048 | 21,947,512 | 85,144,702 | 82,005,381 |
| Coal and Soda Ash (short tons)[1,3] | 4,107,267 | 4,107,267 | 4,107,267 | 4,107,267 |
| Recreation (visits – Low Visitation)[1] | 426,439 | 426,439 | 426,439 | 426,439 |
| Recreation (visits – High Visitation)[1] | 847,318 | 847,318 | 847,318 | 847,318 |

[1] Based on the available data, the analysis assumes a constant annual activity level.
[2] Initial value; this would increase each year from 2016 due to increasing number of wells in production.
[3] Values combined to protect confidentiality of data from individual operators.
[4] The total number of permitted active AUMs per the Green River RMP is 318,647; however, this includes AUMs outside of the RSFO.

**Methods for Livestock Grazing**

The value of grazing in a specific area can be estimated based on the grazing use of the area in AUMs, and the value of an AUM. The direct value of production per AUM was estimated based on regional livestock production value data and ratios in the livestock economics literature. The figures for the value per AUM for cattle or sheep grazing were multiplied by the estimates of grazing use (number of AUMs) by livestock type under each alternative. The result was the total economic value of livestock production, which was used as the direct impact input to the IMPLAN model.

The estimates of grazing use were based on: a) the 10-year average (2006–2015) of billed AUMs, and b) total authorized AUMs of forage use for cattle, sheep, and other livestock for the RSFO. Billed forage use is the closest available proxy for actual forage use. Because billed use may exceed actual grazing use, the economic analyses may overstate the actual economic impacts of grazing to some degree. Estimates were also prepared for total authorized forage use in order to indicate the maximum possible economic impact of grazing on BLM-administered land; however, billed use was considerably below authorized use for every year of the 2006-2015 period. The sections below that focus on each alternative use the analysis based on historical billed AUMs. The section that summarizes the quantitative economic impact analysis results also provides the results for total authorized AUMs.

Total authorized AUMs are the same for Alternatives A and D. Total authorized AUMs are 6,202 less under Alternative B due to provisions of that management alternative (prohibition on grazing in certain allotments). Under Alternative C, total authorized AUMs are limited to the highest level of billed use over the last 10 years (2009 – 2018). That figure is 160,387 AUMs, which is 142,881 less than the authorized AUMs under Alternatives A and D.

The billed use estimates did not vary between the alternatives. While forage utilization and billed use could vary somewhat under these alternatives (e.g., due to differences in treatment of voluntary relinquishment of permits or grazing preference), the differences between the alternatives could not be quantified for billed use. Also, while total authorized AUMs decrease in Alternatives B and C, total authorized AUMs are still greater than or equal to historical total billed use in the RSFO; therefore, the BLM believes that billed use would not be affected by the reduction in authorized AUMs under Alternatives B and C.

In all cases, the AUMs used in the economic impact analysis were adjusted to limit the results to economic activity that accrues within the five-county socioeconomic study area. For each allotment, RSFO rangeland management staff familiar with the allotments and permittees identified probable locations of operator purchases for livestock supplies, services, and labor. This analysis estimated that 77.1% of the economic impact associated with RSFO AUMs accrues within the five-county socioeconomic study area. The remainder accrues outside the five counties, primarily in Idaho and Utah, and these impacts are not included in the results tables below.

The reader should note that the economic impact figures below only represent livestock grazing on BLM-administered land. They do not represent the total impact of livestock grazing on all land, public and private, in the RSFO.

**Methods for Oil and Gas Development and Production**

The analysis for oil and gas economic impacts was divided into two phases of oil and gas economic activity:

- Development (drilling and completion)
- Production.

This analysis focuses only on *new* oil and gas wells that would be drilled into federal mineral estate within the RSFO because the management decisions under consideration in the RMP would not apply to valid and existing mineral rights. The economic impact figures for the new oil and gas wells are a subset of the economic impacts of all oil and gas wells (new *and existing*) on federal mineral estate in the field office, which in turn are a subset of the economic impacts of all oil and gas wells on all federal *and non-federal* mineral estate in the field office and planning unit (i.e., including wells on privately and state-owned mineral estate). Put another way, the impact estimates do *not* include the economic impacts of any existing wells on federal mineral estate, nor of any wells (new and existing) on non-federal mineral estate.[2]

The analyses for development utilized the estimated well numbers from the RFD scenario. The RFD scenario estimated total wells drilled across the planning period. As shown by recent history, drilling activity can vary substantially from year to year. Therefore, the total estimated wells from the RFD were allocated equally to each year of the study period for the purposes of conducting the economic impact analysis. The success (completion) rate for new wells was assumed to be 85% for conventional wells and 95% for CBNG wells, based on recent experience as observed by the RSFO petroleum staff. Estimates of per well drilling and completion costs were based on data from industry and information from RSFO and High Desert District staff. The percentages of total well costs that are spent within the socioeconomic study area were based on data from industry, the U.S. Energy Information Administration, and previous BLM analyses in Wyoming. The combination of wells drilled, completion rates, costs, and percent local expenditures determined the direct impacts used in the IMPLAN model.

The analyses for production utilized the oil and gas production volumes by year from the RFD scenario. Production volumes were multiplied by projected annual oil and gas prices in the Dakotas/Rocky Mountain Region between 2016 and 2031, as reported by the U.S. Energy Information Administration and expressed in

[2] *A nuance here is that the figures for oil and gas production do include estimated production from the wells the RFD estimated would be placed into service from 2013-2015. In the RFD production estimates for each year from 2016 to 2031, it was not possible to separate out the production from the 2013-2015 wells from the total production.*

2014 dollars. These estimated revenues were then entered into the IMPLAN model to estimate the total economic impacts from production.

Ad valorem and severance tax revenues estimates were developed from per unit tax revenue rates from the Wyoming Department of Revenue's 2015 Annual Report. These estimated rates were applied to the forecasted market sales values, with the assumption that the Wyoming tax structure will remain constant over the analysis period. Estimates for Federal Mineral Royalties, both the Wyoming and federal shares, were based on the current Federal Government royalty rate of 12.5% royalty rate (Wyoming receives nearly half of this, or 6.0%). Royalties do not include bonus bids (a one-time additional revenue source for some leases). Royalties also do not include annual rental fees paid on federal mineral leases before they begin yielding production, which are a very small revenue stream.

**Methods for Coal and Trona (Soda Ash) Production**

For each of these industries, there is only one phase of economic activity – the production phase. There is no development phase equivalent to the drilling and completion activities in the oil and gas industry.

The economic analysis for each industry involved two major steps:

- Estimating the amounts of production on BLM-administered coal and trona in the planning area under each management alternative.
- Estimating the economic impacts based on the value of production.

Average production from BLM-administered coal within the RSFO from 2007–2015 was used as the estimate of future production. This period showed variations in production from year to year. Variations are also likely in the future, so the average value was used. In the RSFO, coal is produced from both surface and underground sources. These sources have different cost structures and tax and royalty rates. Future production from each source was based on the average surface to underground production ratio for 2013–2015, applied to the estimate of future production described above. The estimated production volumes were then multiplied by the price of coal, resulting in an estimate of the total annual sales value for coal production. The estimated future price was based on U.S. Energy Information Administration 2016–2031 reference case projections for western Wyoming minemouth prices, using the average of the price projections for all those years, which was $40.24 per short ton, expressed in 2014 dollars. The coal sales values were then entered into the IMPLAN model, Sector 22, Coal Mining, to estimate the total economic impact from coal production.

In the case of trona, there are two steps in production that are both encompassed in the analysis. First, trona is mined. Second, the vast majority of the trona ore is processed into soda ash, which is then sold and shipped to other industries. Some additional trona derivative products are also created and sold. These include purge liquor, sulfide, sodium bi-carbonate, and sodium sesquicarbonate. A small amount of trona ore is also sold separately. The value of these products is not included in the economic impact analysis. Together, they represent from 7.4% to 7.9% of the total sales value of all (federal, state, and private) trona-derived products from Sweetwater County according to data from the Office of Natural Resources Revenue.

Average soda ash production from BLM-administered trona from 2007–2014 was used as the estimate of future production. This period showed variations in production from year to year. Variations are also likely in the future, so the average value was used. The estimated soda ash production volume was then multiplied by the price of soda ash, resulting in an estimate of the total annual sales value for soda ash production. The 2014 Sweetwater County price of $133.91 per ton from the Wyoming Department of Revenue was used as the estimated future price. This assumes that soda ash prices will remain, on average, constant through the duration of the study period. The soda ash revenue was entered into the IMPLAN model to estimate the total economic impact of soda ash production. The total economic impact of trona mining was estimated separately by entering trona mining revenue

into a separate sector of the IMPLAN model, after removing the linkage between the soda ash and trona sectors to avoid double-counting the impacts from trona revenue.

Public revenues for coal and trona were estimated by multiplying the sales value by the current federal mineral royalty rates (portion retained by the Federal Government, and portion returned to the state) and current ad valorem and severance tax rates. Royalties do not include bonus bids and rents. The ad valorem and severance tax analysis was adjusted by the Wyoming Department of Revenue assessed to gross ratios.

The economic impacts of coal production are reported together with the impacts of trona production. Adding these results together was necessary in order to avoid potential disclosure of proprietary information due to the small number of operators in each industry.

**Methods for Recreation**

The direct economic effects of recreation on public lands administered by the RSFO can be estimated by multiplying annual recreational visitation as reported by BLM's Recreation Management Information System (RMIS), by average visitors' expenditure profiles. Table 4-37 shows the total visits in the RSFO in recent years.

**Table 4-37. Total Recreation Visits to the Rock Springs Field Office, 2011–2015**

| Fiscal Year | Visits |
|---|---|
| 2011 | 429,861 |
| 2012 | 426,439 |
| 2013 | 452,916 |
| 2014 | 518,082 |
| 2015 | 847,318 |
| Five-Year Average | 534,923 |
| Low Year Visits | 426,439 |
| High Year Visits | 847,318 |

Source: Recreation Management Information System data

While visitation in the RSFO has increased in recent years, it is unknown if this trend will continue. Therefore, the BLM conducted two economic analyses, for high and low visitation scenarios. The low scenario assumes that visitation over the 2016–2031 study period would average out as the low year visits number (426,439) and the high visitation scenario assumes that visitation would average out to the high year visits number (847,318).

While the alternatives differ in terms of recreation management actions, there is no basis for reliably estimating how the management actions will affect recreation visitation numbers. For instance, in Alternative C, a new open play area would be added. There is no basis for confidently predicting the amount of visitation the new play area would draw. Therefore, the total low and high scenario visitation numbers for Alternative C are the same as for Alternative A; however, it is likely there would be some additional visitation and economic contributions under Alternative C.

Due to the lack of recreation expenditure data for the RSFO, data from the National Visitor Use Monitoring (NVUM) program of the U.S. Forest Service (USFS) was used to provide proxy values for expenditures by recreationists in the RSFO. The NVUM program provides a robust data source that is widely used for recreation economic impact analysis for areas besides USFS-managed lands. This is done by identifying national forest units that are reasonably analogous to another recreation management area and applying the recreational expenditure data from NVUM to other area-specific recreation use data or estimates.

The USFS unit deemed most analogous to the RSFO in terms of recreation use was the Ashley National Forest. However, while the BLM used some of the NVUM data for the Ashley National Forest, the NVUM recreation "trip type" data for the national forest was replaced by analogous estimates for the RSFO developed by a RSFO recreation specialist. This is because the RSFO tends to get more non-local visitation than the Ashley National Forest. This is because the Flaming Gorge Reservoir, located on the National Forest and not part of the RSFO, sees significant local use, while the "brand" of recreation on the RSFO is more remote, which attracts a higher proportion of non-local visitors.

Expenditure values, also referred to as visitor spending profiles, from the NVUM for the Ashley National Forest were applied to the visitation data for the RSFO using a detailed procedure described in Appendix N, Technical Report: Social and Economic Impact Analysis Methodology. The estimated total direct expenditures were used in the IMPLAN model to estimate the indirect, induced, and total economic effects of recreation. The BLM acknowledges that certain recreation activities on BLM-administered land may generate visitor expenditure patterns that differ from the NVUM expenditure values. However, the BLM believes that in total—averaged across the many different recreation activities that take place in the RSFO— the per visit expenditure values from the NVUM are reasonably close to the per visit expenditures that occur in the socioeconomic study area due to recreation on BLM-administered land in the RSFO. Appendix N, Technical Report: Social and Economic Impact Analysis Methodology, discusses the use of NVUM data further, including its applicability for OHV recreation in particular.

The recreation economic analysis presents two views of the economic effects of recreation: economic impact and economic contribution. These views are in addition to the low and high visitation scenarios.

Economic impact measures only the effects of "new" income in the study area; in the case of recreation, economic impact is based on all spending of non-local residents on local recreation, and the spending by local residents that would be lost to other regions if the local BLM recreational opportunity did not exist (some spending by local residents would continue, using local substitute recreation opportunities). Economic contribution includes the effects of all expenditures made by local residents (roughly, individuals who live within the socioeconomic study area), as well as the role of spending from recreators from outside the study area. In other words, economic contribution is based on all spending of local residents on local recreation and all spending of non-local residents on local recreation. Economic impact is the measure used in the analyses above of oil and gas development and production, coal production, trona (soda ash) production, and livestock grazing. Local residents buy only a very small proportion of the total output of those industries, so a measure of economic contribution would be only slightly greater than the measure of economic impact. In the case of recreation, however, local residents make considerable recreation-related expenditures (gas, food, and so on while on local trips), so it is fair to include those expenditures in an analysis of the economic role of recreation. Put another way, expenditures by local and non-local recreationists alike help keep local businesses going.

**Base Year Dollars and Discounting**

All dollar figures throughout the economic analysis are in constant 2014 dollars. This is the base year used in the IMPLAN model.

Some of the results tables below summarize the economic impacts across the entire study period, 2016– 2031. This period reflects the analysis period of the RFD scenario, which extended to 2031.

In the summary tables for the entire study period, economic impacts in future years were *discounted* to adjust for the "time value of money." This is an economic concept that refers to the value of a given amount of money being less in the future. Most people, presented with a choice, would rather have a dollar now than a dollar 10 years from now, or even one year from now because the dollar can be put to productive use now. When monetary values of an action vary over time, economists adjust for the time value of money by applying an annual discount rate to

the amounts in future years. This is different than adjusting for inflation, which is a loss in money's value in the future due to a rise over time in prices for products and services across the economy. The result of adjusting for the time value of money is known as the "present value." Providing present values for 2016–2031 for all the economic impact analyses allows for comparison – based on a reasonably lengthy period – of the relative economic impacts of each resource use and alternative. The BLM used discounts rates of 3% and 7% to present different economic perspectives on the discount rate as recommended by the Office of Management and Budget. In simple terms, the lower rate reflects how consumers make consumption decisions, and the higher rate reflects how industry makes capital allocation decisions (OMB 1992, OMB 2003, OMB 2011).

**REMI Model Analysis**

The direct, indirect, induced, and total economic effects of the management alternatives were estimated in this study through use of the IMPLAN model as described above. An additional analysis using the same primary impact data and a different model – the REMI model developed by REMI, Inc. – was conducted by the State of Wyoming Economic Analysis Division in collaboration with the BLM and the Cooperating Agencies. Appendix O, REMI Model Application and Discussion, provides a detailed discussion of the REMI modeling process and a comparison of the results from the two models. Appendix O concludes that the differences in results between the IMPLAN and REMI models are not so great that they would lead to different management decisions (selection of a different preferred alternative) if REMI were used for the quantitative economic analysis instead of IMPLAN. The results of the two models do not tell decisively different economic stories about the nature of the local economy or the alternatives. Because the REMI and IMPLAN models were not decisively different during the comparison of management alternatives, the Proposed RMP was not modeled in REMI, as the existing results create lower and upper bounds for potential impacts. For NEPA purposes, all conclusions regarding the quantified economic effects of the alternatives are based on the IMPLAN model analysis, as presented in this section of Chapter 4.

### Qualitative Economic Impact Analysis

When direct impacts cannot be readily quantified, often the economic impacts can still be described qualitatively. In such cases, the analytical approach used in this EIS was to describe the type of impact in a base scenario (Alternative A, the No Action Alternative) and then assess the relative changes (qualitative indications of increases or decreases in economic values) that would be likely under other alternatives.

Some management decisions may result in increased costs to operators (the firms or individuals who undertake the activities) or to project proponents. The economic impacts of decisions that increase costs for operators and/or project proponents are many and can be complex. Several results can occur, sometimes simultaneously:

- *Reduced economic activity:* Cost increases may cut into profitability and drive delays to, reductions in, or cessation of operations or projects. In general, it is rare for cost increases to directly preclude projects or result in operators going out of business, as project proponents and operators will seek other approaches, such as reconfiguring or moving projects or operations. However, projects or operations may be scaled back, or if they are moved a great distance, the local economy may experience a loss.
- *Increased economic activity:* Where operations or projects are not delayed or reduced substantially, or terminated, increased costs may also generate additional economic activity in the form of income and jobs in the economic sectors receiving the increased expenditures. For instance, if restrictions under an alternative result in a new power line having to take a longer route, additional expenditures for materials, equipment, and labor would be made. These increased expenditures would support some amount of additional income and employment. However, increased costs may also represent opportunity costs; that is, the project proponent or society may have benefited more if the additional funds were used in another way.

- *The net effect:* In many cases it is not possible to identify which effect – increased or decreased economic activity – will predominate, without considerably more information.

In the analysis below, where management actions would potentially increase costs to operators or project proponents, these increased costs are pointed out and discussed qualitatively.

## Nonmarket Value Impact Analysis

The term nonmarket values refers to the benefits individuals attribute to experiences of the environment or uses of natural and cultural resources that do not involve market transactions and therefore lack prices. Because these values are not priced, they are difficult to estimate. Also, they are not directly comparable to estimates of income derived from market transactions such as commodity sales or purchases by recreationists. For example, a "consumer surplus" estimate of nonmarket value reflects the difference between total willingness to pay and transactions in market, while commodity and expenditure value estimates, like those generated by the IMPLAN model and presented in Section 4.23.3 and the alternative-specific annual impact and net present value tables, only reflect transactions in markets. Nonetheless, BLM guidance calls for the BLM to make effort to identify and assess impacts to nonmarket values in the planning process (BLM Instruction Memorandum No. 2013-131, Guidance on Estimating Nonmarket Environmental Values, May 31, 2013). The Socioeconomic Baseline Report provides background information on nonmarket values, including discussion of different types of nonmarket values.

For this RMP/EIS, the BLM estimates nonmarket values associated with recreation using a "benefits transfer" methodology described in the Impacts of Alternative A section below. Because of uncertainties inherent in quantification of nonmarket values, the analysis is conducted for low and high recreation visitation scenarios. Potential differences between the alternatives in the nonmarket values associated with recreation are described qualitatively. Additional types of nonmarket values, and how they may vary between alternatives, are described qualitatively.

### Social Impact Analysis

Some social impacts, especially those impacts related to certain demographic characteristics (such as population and age distribution), housing, and community services, are driven in large part by changes in economic activity. Other social impacts may arise with or without effects to economic activity including, for example, impacts on quality of life, recreation and amenity values, and traditional land uses and associated cultural values. Social impacts may be marginal or substantial, depending on the degree to which new and revised management actions alter the local social conditions.

Methods exist to quantify some social impacts; however, in this analysis social impacts are described qualitatively. This is because social impacts of BLM management decisions are typically not amenable to quantitative analysis. For instance, it is difficult to reliably translate potential for future resource development into population change estimates without having plans for their development. In other cases, the impacts are to values and attitudes and cannot readily be quantified. Social impacts also may vary considerably depending on the nature of the alternatives and of the communities involved. For a planning effort that covers as large a geographic area as this effort, analysis of social impacts must necessarily use a broad brush.

A key aspect of the social impacts analysis approach is to address impacts based on the varying points of view of key types of stakeholders. The Socioeconomic Baseline Report identifies several broad categories of stakeholders to BLM management decisions in the RSFO. These categories reflect different linkages people have to public lands. They also reflect distinct sets of attitudes, beliefs, values, opinions, and perceptions about public resources and the effects of various management policies and actions. Categorization of stakeholders is not meant to imply that all individuals and social groups fit neatly into a single category; many specific individuals or organizations may have multiple interests and would see themselves reflected in more than one stakeholder category. The point

of categorization is to allow differentiation of social impacts based on broad differences in points of view. The social impacts analyses below assess the alternatives against the different points of view in the broad stakeholder categories.

#### Environmental Justice Impact Analysis

Definitions and methods for analysis of potential environmental justice (EJ) issues are described in the Socioeconomic Baseline Report. In short, the socioeconomic study area was screened in the Socioeconomic Baseline Report to identify communities with minority and low-income populations that qualify as potential EJ populations based on guidance for EJ analysis from the Council on Environmental Quality (CEQ). These communities and their potential EJ populations, and assessment of the likelihood of impacts to these populations, are presented in Section 4.23.8 below.

## 4.22.2 Summary of the Quantitative Economic Impact Analysis Results

### IMPLAN Model Results

Appendix N presents multiple tables that allow for easy comparison of the quantitative economic impact results across the alternatives. The economic indicators presented in this section are:

- Total economic output
- Total labor earnings
- Total employment.

Certain estimated public revenues are presented in the sections below that address each alternative in detail.

Readers should keep in mind that the figures from the IMPLAN model and the revenue analysis *only* represent certain quantifiable economic effects of each alternative. Additional, non-modeled economic and social effects would occur under each alternative. These are addressed qualitatively in the sections focused on each alternative.

In the tables in Appendix N, annual estimates are for the first year of the study period, 2016. For livestock grazing, oil and gas development, coal and soda ash production, and recreation, the BLM assumed that the 2016 level of use would also be the average level of use across every year of the study period, 2016–2031. This assumption was based on the available data. For oil and gas production, use levels and economic impact would increase in every year of the study period as additional wells come into production based on the RFD scenario. The net present value estimates in each table in Appendix N encompass the cumulative economic and fiscal impacts of each alternative across the entire study period, based on a discount rate of 3.0% or 7.0%. The net present value estimates take into account both the increasing level of oil and gas production in each year of the study period and the time value of money. Net present value is not an applicable concept for employment. The time value of money does not apply to future jobs versus present jobs. Therefore, the employment figures in the annual impact tables in Appendix N do not account for the projected growth in oil and gas production, and associated jobs, in each year of the study period. Instead, the net present value tables in in Appendix N that address each alternative in detail account for this growth in jobs by showing the average jobs in oil and gas production across the study period.

The BLM evaluated several analysis scenarios for grazing and recreation impacts. The first table in Appendix N for each economic indicator presents the analysis scenario for grazing economic impacts for estimated billed use of AUMs and recreation economic impacts for a high visitation scenario. A second table for each indicator presents results for each of the following additional scenarios:

- Grazing economic impact for full use of all authorized AUMS

- Recreation economic impact for a low visitation scenario
- Recreation economic contribution for a low visitation scenario
- Recreation economic contribution for a high visitation scenario.

The following general observations pertain to Tables N.7 through N.12 in Appendix N:

- The estimates for livestock grazing impacts do not vary across the alternatives when billed use is evaluated but do vary when total authorized use is evaluated. This is because, first, Alternative B reduces total authorized AUMs in some allotments, although by a small percentage of total AUMs across the entire RSFO. Second, Alternative C limits total authorized AUMs to the highest level of billed use over the last 10 years (2009 – 2018), which was 160,387 AUMs, considerably less than the 303,238 AUMs under Alternatives A and D. The total authorized AUMs under Alternatives B and C would still be greater than or equal to historical total billed use in the RSFO; therefore, the BLM believes that billed use would not be affected by the reduction in authorized AUMs under Alternatives B and C. The estimates for total authorized use are identical for Alternatives A and D because differences in management actions affecting livestock grazing under these two alternatives cannot be reliably quantified.
- The oil and gas development and production impact estimates vary across the alternatives according to differences in the RFD for each alternative.
- Although acres open or closed to coal and soda ash differ across alternatives, these acreage differences are not anticipated to have a measurable effect on future production amounts. This is based upon field office specialists' knowledge about coal and soda ash production in the area and their interactions with the companies.
- The recreation impact estimates for all alternatives are identical because differences in visitation based on management actions affecting recreation cannot be reliably quantified.

Table N.7 presents total economic output by BLM program by alternative. Important observations on these results include the following:

- The quantified economic output in the RSFO across all programs totals $1.734 billion annually in 2016 in Alternative A, $0.827 billion in Alternative B, $1.769 billion in Alternative C, and $1.723 billion in Alternative D.
- The impacts of oil and gas development and production, as well as coal and soda ash production, are considerably greater than the impacts of livestock grazing and recreation. For instance, total economic output from oil and gas development under Alternatives A, C, and D is over 50 times greater than that from livestock grazing and 19 to 20 times greater than that from recreation. Under Alternative B, the differences are about 14 and six times greater. However, these comparisons do not mean that economic activity attributable to livestock grazing and recreation on BLM-administered land is not valuable to the five-county socioeconomic study area economy, especially for the businesses and individuals who directly profit from that economic activity.
- Economic output from oil and gas production is less than output from oil and gas development on an annual basis in 2016 but is considerably greatly on a net present value basis across the entire study period, due to increasing production over time as more and more wells come into production each year.
- Total economic output from oil and gas development and production under Alternative C would be slightly higher than under Alternatives A and D. Output from these programs under Alternative B would be considerably lower – approximately 73% to 74% lower under Alternative B than Alternatives A, C, and D.

Table N.8 presents the total economic output results for additional livestock grazing and recreation analysis scenarios. These scenarios compare as follows to those presented in Table N.7:

- Total economic output from livestock grazing if all authorized AUMs were actually used (which has not occurred in recent history) would be almost twice as much as the output based on recent average billed use, except for Alternative C.
- Output from livestock grazing for use of all authorized AUMs under Alternative B would be slightly lower (just over 2% lower) than under Alternatives A and D.
- Output from livestock grazing for use of all authorized AUMs under Alternative C would be considerably lower (by almost half) than under Alternatives A, B, and D.
- The output from recreation under all alternatives in a low visitation scenario would be about half that of the output from a high visitation scenario, when viewed from either the economic impact or economic contribution perspective.
- From an economic contribution perspective, output from recreation is about 18% higher than output viewed from an economic impact perspective, for either the low or high visitation scenario. Economic contribution includes the effects of spending by recreationists who reside within the study area.

Readers should understand that economic output is a very gross level indicator of economic activity. Output is the value of all product and service purchases by intermediate and final consumers. Not all components of output actually accrue to the local economy. Much may leak out of the local study area[3] and move to the region where a product is produced (e.g., pipes and other material used in an oil or gas well) or to companies and individuals outside the study area (e.g., returns on capital that accrue to oil company corporate headquarters, stockholders, and lenders). As an example, the IMPLAN model shows that of the direct economic output for RSFO oil and gas production, only about 18% accrues in the socioeconomic study area: about 4% as local employee compensation, and about 14% as purchases of local goods and services that are inputs to production.

Earnings and employment are better indicators of the effects of BLM-administered land on the local (study area) economy. IMPLAN's estimates of earnings and employment are for the socioeconomic study area only. Direct jobs, and associated earnings, are for work taking place in the study area. The model adjusts for leakages out of the study area as some local businesses and workers buy products and services from outside the study area.[4] Thus, the total (direct, indirect, and induced) earnings and employment reported by IMPLAN all occur within the study area.

To summarize, while all economic output reported by IMPLAN is attributable to uses of BLM-administered land within the study area, only a portion of that economic activity actually accrues to the local economy (the study area). Earnings and employment reported by IMPLAN are attributable uses of BLM-administered land within the study area and occur within the study area.

Table N.9 presents total labor earnings by BLM program by alternative. Following are key observations regarding these results:

- Total labor earnings attributable to BLM-administered land in the RSFO total $379 million annually in 2016 in Alternative A, $168 million in Alternative B, $388 million in Alternative C, and $377 million in Alternative D.

[3] *The socioeconomic study area, consisting of following five counties: Fremont, Lincoln, Sublette, Sweetwater, and Uinta.*

[4] *IMPLAN assumes all direct earnings accrue within the study area. Therefore, temporary oil and gas workers are a special case. Much of their earnings from work in the study area accrues to their permanent location. Therefore, the induced impacts from respending of their earnings in the study area are manually adjusted, based on data from the Wyoming Wage Records Database maintained by the Wyoming Department of Workforce Services, to reflect the removal of that income from the local economy.*

- Oil and gas development provides, by far, the largest amount of total labor earnings on both an annual and net present value basis in Alternatives A, C, and D, but under Alternative B provides somewhat less earnings than coal and soda ash production.
- The net present value of total labor earnings from oil and gas production under all alternatives is considerably less than the net present value of oil and gas development. This result differs from that for total economic output from oil and gas production as shown in the total economic output table (Table N.7), in which the net present value of total economic output is greater for oil and gas production than for oil and gas development. The difference is because a smaller portion of oil and gas production earnings occur within the study area compared to oil and gas development earnings.
- As with total economic output, earnings would be considerably less for oil and gas development and production under Alternative B than Alternatives A, C, and D.

Table N.10 presents the total labor earnings results for additional livestock grazing and recreation analysis scenarios. The same observations made for output also apply for earnings for these scenarios. Specifically:

- Total labor earnings from livestock grazing if all authorized AUMs were actually used (which has not occurred in recent history) would be almost twice as much as earnings based on recent average billed use, except for Alternative C.
- Total labor earnings from livestock grazing for use of all authorized AUMs under Alternative B would be slightly lower (just over 2% lower) than under Alternatives A and D, and under Alternative C would be considerably lower (by almost half) than under Alternatives A, B, and D.
- The total labor earnings from recreation under all alternatives in a low visitation scenario would be about half that of the earnings from a high visitation scenario, when viewed from either the economic impact or economic contribution perspective.
- From an economic contribution perspective, total labor earnings from recreation are about 18% higher than total labor earnings viewed from an economic impact perspective, for either the low or high visitation scenario.

Table N.11 presents total employment by BLM program by alternative. IMPLAN's employment estimates include part-time, full-time, and overtime work, all expressed as annual average employment. Most of the observations made for earnings also apply for employment, except that net present value is not an applicable concept for employment. The key observations are as follows:

- Annual total employment attributable to BLM-administered land in the RSFO totals 5,435 jobs annually in 2016 in Alternative A, 2,515 jobs in Alternative B, 5,549 jobs in Alternative C, and 5,399 jobs in Alternative D.
- Oil and gas development provides, by far, the largest number of jobs in 2016 in Alternatives A, C, and D, but under Alternative B provides somewhat less jobs than coal and soda ash production.
- Total employment would be considerably less for oil and gas development and production under Alternative B than Alternatives A, C, and D.

Table N.12 presents the employment results for additional livestock grazing and recreation analysis scenarios. The same observations made for output also apply for employment for these scenarios. Specifically:

- Employment from livestock grazing if all authorized AUMs were actually used (which has not occurred in recent history) would be about twice as much as employment based on recent average billed use under Alternatives A, B, and D, but only slightly higher under Alternative C.

- Employment from livestock grazing for use of all authorized AUMs under Alternative B would be slightly lower (about 2% lower) than under Alternatives A, C, and D, and under Alternative C would be considerably lower (by almost half) than under Alternatives A, B, and D.
- The employment from recreation under all alternatives in a low visitation scenario would be about half that of the employment from a high visitation scenario, when viewed from either the economic impact or economic contribution perspective.
- From an economic contribution perspective, employment from recreation is 15% to 19% higher than employment viewed from an economic impact perspective, depending on the alternative and visitation scenario (high or low).

## 4.22.3 Alternative B

### Quantified Economic Impacts

Table N.16 in Appendix N summarizes the annual economic and fiscal impacts of Alternative B by program (resource use) and in total. These estimates are based on the first year of the study period, 2016. For livestock grazing, oil and gas development, coal and soda ash production, and recreation, the BLM assumed that the 2016 level of use would also be the average level of use across every year of the study period, 2016–2031. This assumption was based on the available data. For oil and gas production, use levels and economic impact would increase in every year of the study period as additional wells come into production. The increasing production levels were based on the RFD scenario. Table N.17 presents the cumulative economic and fiscal impacts of Alternative B across the entire study period, based on a discount rate of 3%. Table N.18 presents the cumulative impacts of Alternative B based on a discount rate of 7%. These two tables take into account both the increasing level of oil and gas production in each year of the study period and the time value of money. In the case of employment, which is not subject to discounting for the time value of money, the growth in jobs in oil and gas production across the study period is reflected in the figure for average jobs per year in the net present value tables. These three tables in Appendix N all address the livestock grazing analysis scenario based on historical billed AUMs, and the recreation analysis scenario based the high visitation scenario and using the economic impact (versus economic contribution) perspective.[5] For other scenarios for grazing and recreation, see the earlier Section 4.22.3, Summary of the Quantitative Economic Impact Analysis Results.

Key high-level observations regarding the quantified economic impacts for Alternative B compared to Alternative A include:

- Total economic output attributable to BLM-administered land in the RSFO across all programs totals $827 million annually in 2016 in Alternative B. Earnings total $168 million annually. Employment totals 2,515 jobs annually. These values are approximately 56%, 52%, and 56% lower, respectively, than the comparable values for Alternative A.
- Total quantified public revenues in 2016 range from approximately 52% to 55% lower under Alternative B than Alternative A. The state redistributes a small portion of total severance taxes and federal mineral royalties directly to the local communities where the revenues are generated.
- When considered on a net present value basis, the percentage reductions are up to 5% greater for the economic indicators and up to 10% greater for the public revenue indicators compared to the 2016 percentage reductions noted above.

[5] *The rationales for these selections are as follows. For grazing, historical billed AUMs are the closest approximation possible for actual historical use, and future use is unlikely to differ dramatically, on average, from historical use. For recreation, the lower visitation scenario would probably under-represent future use given that some growth in recreation use over the study period is likely based on population and outdoor recreation trends, and economic impact is the most analogous analysis with the other resource uses.*

- The quantified impacts of livestock grazing, coal and soda ash production, and recreation are the same under Alternative B as Alternative A.
- All quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A. This is due to the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production as projected by the RFD scenario.

It is possible that overall oil and gas development may not be as affected by BLM's actions under Alternative B as the large reduction in BLM-managed well counts would seem to indicate. Depending on oil/gas field configurations, well-drilling technology, and availability of non-federal mineral estate, in some areas oil and gas development may simply shift from federal mineral estate to non-federal mineral estate. Determining the degree of such shifts in activity requires considerably more information on the plans of and options available to oil and gas developers than is available for this planning level EIS. However, it should be noted that the RFD does not project a substantial difference in non-BLM managed wells between Alternatives A and B.

## Other Market-Based Economic Impacts

Alternative B would emphasize conservation of resource values through constraints on resource uses and through approaches to resource management that emphasize natural processes. Given this overall emphasis, Alternative B would result in reduced economic activity relative to Alternative A, as quantified above and as discussed below. It would also result in greater costs to the BLM and to operators. As noted earlier, increased costs may negatively impact operators and could reduce the economic activity supported by resource uses. However, individuals that appreciate the conservation emphasis of Alternative B may develop local economic activity around the conservation of the natural processes.

Alternative B would restrict certain management practices, which could increase costs. For instance, while Alternative A would allow clear cuts, Alternative B would prohibit them. Chemical treatments for vegetation management are specifically allowed under Alternative A, but not included as an option under Alternative B. Pre-commercial thinning would be prohibited under Alternative B except for fuels treatment.

Alternative B, besides cutting back substantially on oil and gas development activity through a wide range of prohibitions and restrictions, would cut back on other resource uses as well. For instance, the acreage restricted from saleable mineral disposals under Alternative B would be nearly three times greater than under Alternative A (2,581,741 acres vs. 833,719 acres). ROW exclusion areas under Alternative B would total 2,480,876 acres compared to 426,709 acres under Alternative A. These changes in part reflect an increased number of ACECs (with accompanying restrictions) under Alternative B, and much larger acreages for some of the ACECs common to both alternatives. ACECs under Alternative B total 1,605,660 acres, compared to 286,450 acres under Alternative A.

Alternative B would restrict access to resources in certain situations, potentially reducing economic activity. For instance, logging operations would be limited to slopes up to 25% under Alternative B, compared to 45% under Alternative A. In addition, while erosion control plans and rehabilitation plans would be prepared and implemented under Alternative A when areas where soils are highly erodible or difficult to reclaim cannot be avoided, in Alternative B surface-disturbing activities would be prohibited in such areas.

Setback distance requirements would be greater under Alternative B than Alternative A. These requirements could reduce certain activities and/or increase operational expenses. For instance:

- Surface disturbing activities and new permanent facilities (e.g., storage tanks, structure pits, etc.) would be prohibited not just within 100-year floodplains, wetlands, riparian areas, and perennial streams (as in Alternative A), but also within 1,320 feet (¼ mile) of such features.

- Herbicide and pesticide loading, maintenance, and refueling areas would be prohibited within ¼ mile of water sources, floodplains, riparian areas, and special status plant locations, compared to a 500-foot limitation in Alternative A.
- Surface disturbing activities would generally be prohibited within three miles of recreation sites, versus ¼ mile under Alternative A.
- Various restrictions would apply within a trail management corridor of five miles on either side of National Historic Trails, compared to a ¼ mile distance under Alternative A.

Many of the management restrictions that would occur under Alternative A as necessary or on a case-by-case basis would be applied on a broader basis under Alternative B. Exceptions, rather than application, would be decided on a case-by-case basis. For example, seasonal restrictions as necessary for surface disturbing activities to protect game fish and special status fish populations during spawning under Alternative A would be replaced in Alternative B by TLSs on surface disturbing activities within ¼ mile of riparian areas, with exceptions granted on a case-by-case basis.

The BLM and operators would incur additional expenses in Alternative B due to various activity planning requirements, including but not limited to the following:

- Alternative B would require best available modeling to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies from all surface disturbing activities.
- Site-specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, and enhance water quality) would be required in all cases in Alternative B, but only where needed in Alternative A.

A number of livestock grazing management actions under Alternative B could reduce the number of AUMs available for grazing, increase expenses, or alter management practices of operators. Examples include:

- If monitoring shows that the Wyoming Land Health Standards are not met and livestock grazing is shown to be among the contributing factors, Alternative B would implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease up to three consecutive years (60%) in active AUMs until standards are met.
- Livestock and wild horse forage allocations would be adjusted as needed to meet site potential to support wildlife habitat requirements.
- Livestock grazing would be prohibited in wetland and riparian areas that are not meeting PFC.
- Multiple restrictions on placement of salt and mineral supplements (such as low moisture block supplements) would occur under Alternative B.

Alternative B de-emphasizes recreation, particularly developed recreation, relative to Alternative A. For instance, no SRMAs would be retained in Alternative B. Areas for OHV rallies, cross-country races, and other organized events would not be provided. Certain areas that would have recreation project plans developed under Alternative A would not have such plans under Alternative B. Certain areas that would be managed for recreation values under Alternative A would be managed for other values under Alternative B.

As in Alternative A, various management actions under Alternative B would generate economic activity due to the resulting expenditures made in the local and state economies by the BLM or by operators, although the level of economic activity from many of these actions would be small relative to the activity generated by resource uses.

## Impacts on Nonmarket Values

Nonmarket values associated with recreation may accrue differently across different types of recreationists. Consumer surplus values for activities associated with developed recreation could decrease because this alternative de-emphasizes such activities. For instance, SRMAs would not be retained in Alternative B. Consumer surplus values for OHV uses would decrease because areas for OHV rallies, cross-country races, and other organized events would not be provided, and areas could be immediately closed where OHVs are causing or will cause considerable adverse effects upon a wide range of resources, until the adverse effects are eliminated and measures implemented to prevent recurrence. Increases in consumer surplus may occur for some recreationists who would benefit from the increased protections in this alternative for the open spaces they value, because the lowest levels of resource development would occur in this alternative.

Nonmarket values associated with livestock grazing would differ from those Alternative A or the other alternatives. Potential reductions in AUMs associated with certain provisions of Alternative B and other actions that may affect operators' management practices could impact some grazing operations. To the extent that some ranchers cannot adjust their operations to make up for the losses of the forage on BLM-administered land, the nonmarket values associated with some of the ranches in the planning area, including provision of nonmarket lifestyle values to ranchers and open space amenity values to other residents and tourists, could be negatively impacted. However, as noted in the Alternative A nonmarket value discussion, the literature shows that changes in ranch profitability due to public land grazing policies may not directly translate to withdrawal from ranching. Another difference between Alternative A and the other alternatives is that adverse nonmarket value impacts some other people experience from livestock grazing due, for example, to reductions in native plant species and forage for wildlife, would decrease due to Alternative B's changes to the level of and practices in livestock grazing on BLM-administered land.

Use and non-use nonmarket values associated with wild horses would be greatest under Alternative B. This alternative would have the highest number and acres of wild horse HMAs, support the highest appropriate management level (AML) (1,040 to 1,796 wild horses) and allocate the largest number of AUMs (21,552) to wild horses. Water developments supporting wild horses would be provided. Provisions for public education and enjoyment of wild horses would greater than under other alternatives.

This alternative would also provide the greatest support to other non-use values. For instance, such values related to open space would be maintained through lower levels of extractive resource development, substantially higher acreage of ROW exclusion areas, and other actions.

Many nonmarket values associated with ecosystem services would be greater under this alternative than Alternative A and would be highest among the alternatives. This alternative's greater focus on habitat conservation and lower levels of resource development would be more likely to support higher levels of ecological and other natural functions that provide various ecosystem services. For example, under Alternative B, livestock grazing would be prohibited in wetland and riparian areas that are not meeting PFC. All riparian areas should, within growing seasons, have activity or other management plans in various states of implementation that would allow riparian areas to achieve PFC and be managed for late successional stage vegetation or potential natural community (PNC). This schedule and the PNC objective are more protective of riparian zone health than the schedule and objectives of the other alternatives. Therefore, benefits to ecosystem services associated with healthy riparian zones would be greatest under this alternative. Many other provisions of Alternative B would protect or enhance ecosystem service nonmarket values. For instance, prohibition of clear cuts, limitation of logging operations to slopes up to 25% (compared to 45% under Alternative A), and requirements for a site-specific activity and implementation plan in all cases would reduce erosion and sediment yield, promote ground cover, and enhance water quality, thereby providing greater ecosystem service values associated with water supplies.

## Social Impacts

Based on the analysis presented at the beginning of the Social Impacts subsection for Section 4.22.4, Impacts of Alternative A, social impacts driven by economic changes, such as stresses on community resources and community cohesiveness from high rates of resource development, would be reduced in Alternative B relative to Alternative A due to this alternative's much lower levels of oil and gas development. These impacts would be lowest in this alternative compared to any other alternative.

However, it is also possible that the low levels of oil and gas development under Alternative B could have negative community impacts. Many communities and residents in the planning area have experienced high rates of this development in the recent past, may expect such rates again in the future, and may have made plans or investments that depend on resumption of high rates of development. To the extent this is true for some of the communities and residents, the reduced rates of development under Alternative B could reduce their ability to achieve desired levels of community development and individual economic well-being.

Mineral Development and Production Stakeholders would see this alternative as much less favorable to their interests and values than Alternative A, and as the least favorable of all the alternatives. Based on the lower level of oil and gas development projected in this alternative, and additional operational and other restrictions, these stakeholders would see this alternative as providing the smallest economic contributions at the national, state, and local levels, and for their own businesses. They would also see it as providing the least support to long-standing mining customs and culture in the planning area. These stakeholders would also believe that this alternative fails to take adequate advantage of the planning area's mineral resources to reduce reliance on foreign energy sources.

Renewable Energy Stakeholders would view this alternative much less favorably than Alternative A. In particular, the very high acreage of this alternative that is in ROW exclusion areas (2,480,876 acres versus 426,709 acres under Alternative A) would make siting of wind energy projects and development of power transmission lines from areas with wind development difficult.

Livestock Grazing Stakeholders would find this alternative less favorable than Alternative A. Certain provisions of Alternative B could reduce the number of AUMs authorized for livestock grazing and be perceived as increasing their operating costs and requiring them to alter their management practices. These stakeholders would see this alternative as harmful to their abilities to maintain their livelihoods and the customs and culture of ranching, and they also would be concerned that this alternative would impact the long-term viability of maintaining livestock grazing as an important part of the traditions and economies of local communities.

Habitat and Resource Conservation Stakeholders would see this alternative as more favorable to their interests and values than Alternative A, and as the most favorable of all the alternatives. This alternative has the lowest levels of projected oil and gas development. It generally also would reduce other types of development, for instance, by substantially restricting ROWs. Developed recreation would be de-emphasized, with no SRMAs retained, and OHV routes would be substantially reduced. These stakeholders would find these reductions in development, additional operational constraints on commodity resource uses, and constraints on OHV use and new recreation developments to be consistent with their interests. In addition, these stakeholders would find resource protection designations (e.g., the area in ACECs would be expanded considerably compared to Alternative A) supportive of their values. Additional management actions would be consistent with these stakeholders' values, including prohibitions on clear-cuts, exclusive use of native plants to establish DPC objectives, and management of lands with wilderness characteristics and WSAs for wilderness values even if not designated as wilderness by Congress.

Recreation Stakeholders would have mixed views regarding Alternative B. Many recreational activities would be able to take place under this alternative as they would under Alternative A. However, OHV recreation would be constrained compared to Alternative A, through reductions in OHV routes and other actions. OHV recreationists

would find this alternative the least consistent with their interests. In addition, recreationists who prefer developed recreation facilities would have the lowest preference for this alternative, as it would not retain any SRMAs and would have other reductions in recreation development. However, some recreationists would favor the increased protections in this alternative for the open spaces they value, because the lowest levels of resource development would occur in this alternative. Recreationists who prefer quiet recreation experiences would also favor the reduction in areas and routes where OHV uses would take place.

## 4.22.4 Alternative C

### Quantified Economic Impacts

Table N.19 in Appendix N summarizes the annual economic and fiscal impacts of Alternative C by program (resource use) and in total. These estimates are based on the first year of the study period, 2016. For livestock grazing, oil and gas development, coal and soda ash production, and recreation, the BLM assumed that the 2016 level of use would also be the average level of use across every year of the study period, 2016–2031. This assumption was based on the available data. For oil and gas production, use levels and economic impact would increase in every year of the study period as additional wells come into production. The increasing production levels were based on the RFD scenario. Table N.20 presents the cumulative economic and fiscal impacts of Alternative C across the entire study period, based on a discount rate of 3%. Table N.21 presents the cumulative impacts of Alternative C based on a discount rate of 7%. These two tables take into account both the increasing level of oil and gas production in each year of the study period and the time value of money. In the case of employment, which is not subject to discounting for the time value of money, the growth in jobs in oil and gas production across the study period is reflected in the figure for average jobs per year in the net present value tables. These three tables in Appendix N all address the livestock grazing analysis scenario based on historical billed AUMs, and the recreation analysis scenario based the high visitation scenario and using the economic impact (versus economic contribution) perspective.[6] For other scenarios for grazing and recreation, see the earlier Section 4.23.3, Summary of the Quantitative Economic Impact Analysis Results.

Key high-level observations regarding the quantified economic impacts for Alternative C compared to Alternative A include:

- Total economic output attributable to BLM-administered land in the RSFO across all programs totals $1.769 billion annually in 2016 in Alternative C. Earnings total $388 million annually. Employment totals 5,549 jobs annually. These values are 2.0% to 2.2% greater than the comparable values for Alternative A.
- Total quantified public revenues in 2016 are 2.0% to 2.1% greater under Alternative C than Alternative A. The state redistributes a small portion of total severance taxes and federal mineral royalties directly to the local communities where the revenues are generated.
- When considered on a net present value basis, the percentage increases for all economic and public revenue indicators are similar to the 2016 percentage increases noted above.
- The quantified economic impacts of livestock grazing, coal and soda ash production, and recreation are the same under Alternative C as Alternative A.

All quantified economic and public revenue indicators for oil and gas development and production are higher under Alternative C than Alternative A by slightly less than 3%. This is due to the slightly greater number of wells

[6] *The rationales for these selections are as follows. For grazing, historical billed AUMs are the closest approximation possible for actual historical use, and future use is unlikely to differ dramatically, on average, from historical use. For recreation, the lower visitation scenario would probably under-represent future use given that some growth in recreation use over the study period is likely based on population and outdoor recreation trends, and economic impact is the most analogous analysis with the other resource uses.*

drilled under Alternative C and corresponding increases in oil and gas production as projected by the RFD scenario.

## Other Market-Based Economic Impacts

Alternative C emphasizes resource uses (e.g., energy and mineral development and other commodity uses). Relative to the other alternatives, Alternative C proposes the least restrictive management actions for energy and commodity development and the least protective management actions for physical, biological, and cultural resources while maintaining protections required by laws and regulations. Given this overall emphasis, Alternative C would in most cases result in increased economic activity relative to Alternative A, as quantified above and as discussed below.

In contrast to all other alternatives, Alternative C would have no ACECs and no other management areas for purposes other than recreation (see below). It would have the same acreage in WSAs as all other alternatives.

Various activities (e.g., new permanent facilities) that would be prohibited in certain areas (e.g., 100-year floodplains) in Alternative A and larger areas under Alternative B would be considered on a case-by-case basis in Alternative C. Or they would be subject to certain restrictions (e.g., seasonal restrictions on surface disturbing and/or disruptive activities in big game crucial winter range) rather than prohibitions.

Alternative C's management practice limitations are generally much less restrictive than those of Alternative B; in most cases they are similar to or even more permissive than under Alternative A. Examples include:

- Allowing logging operations on slopes up to 45%;
- Allowing a full range of woodland management practices, including pre-commercial thinning;
- Not applying any TLSs to surface disturbing activities to protect fishery critical life stages;
- Avoiding known locations of special status plant species for surface disturbing activities, rather than prohibiting such activities in such locations;
- Treating actions to reduce raptor perches as discretionary rather than required for new structures in special status species habitat.

In addition, some activities that are the subject of restrictions in Alternative A and/or Alternative B would not be addressed or restricted in Alternative C, such as the placement of herbicide and pesticide loading, maintenance, and refueling areas relative to water sources, floodplains, riparian areas, and special status plant locations.

Considerably fewer acres would be closed to mineral material sales and disposal under Alternative C than Alternative A (226,421 vs. 833,719 acres). This could allow for increased commercial and local government uses, supporting local economic development.

Setback distances under Alternative C would be similar to or more permissive than those under Alternative A, and much less than under Alternative B. For instance, surface-disturbing activities under Alternative C would be allowed within the same ¼-mile distance of recreation sites as in Alternative A, compared to three miles under Alternative B.

Under Alternative C, site-specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, and enhance water quality) may be prepared, but would not be required. In addition, there would be no requirement, as in Alternatives A and B, for hydrogeologic investigations where there is a reasonable expectation that surface water features are connected with geologic formations that are being dewatered.

Alternative C would generally have reduced mitigation requirements (and therefore costs) relative to Alternatives A and B.

Alternative C would limit total authorized AUMs to the highest level of billed use over the last 10 years (2009 – 2018). That figure is 160,387 AUMs, which is 142,881 less than the authorized AUMs under Alternative A. However, average historical billed use has been less than 160,387 AUMs, and the alternative allows use up to the highest use since 2009; therefore, the BLM believes that billed use would not be affected by the reduction in authorized AUMs under Alternative C.

Other management actions under Alternative C would generally treat livestock grazing similarly to or more favorably than Alternative A, and much more favorably than Alternative B. For instance, allotment stocking rates would be established to maximize utilization of forage in areas preferred by livestock. Alternative C would give priority to livestock forage needs when allocating vegetative resources regardless of site potential.

Alternative C generally manages recreation similarly to Alternative A but would favor developed recreation through designation of two additional SRMAs (Little Mountain and Red Creek Badlands). The SRMA acreage under Alternative C would total 592,800 acres, compared to 298,110 acres under Alternative A. Other resource uses would receive some preference over recreation under Alternative C. For instance, portions of the Wind River Front SRMA would be made available to mineral leasing. This could negatively impact recreational use of this area and its associated economic contributions. Similarly, oil and gas development would alter the visual experience and impact the historical experience value sought by users of the Oregon Trail and Overland Trail. These users would be likely to seek these experiences in other areas outside the RSFO.

Lands and realty actions—rights of way and corridors, land use authorizations, withdrawals, and land tenure adjustments—under Alternative C would generally be at least as favorable to economic development as under Alternative A. For instance, 225,784 acres would be identified as ROW exclusion areas under Alternative C, compared to 426,709 acres under Alternative A.

As in Alternative A, various management actions under Alternative C would generate economic activity due to the resulting expenditures made in the local and state economies by the BLM or by operators, although the level of economic activity from many of these actions would be small relative to the activity generated by resource uses.

## Impacts on Nonmarket Values

Nonmarket values associated with recreation would be similar to Alternative A under this alternative, with some potential for decreases in recreation consumer surplus values. In general, the recreation policies of the two alternatives are similar. However, Alternative C generally favors resource development values over recreation values. Some conflicts between these uses and values could occur, which could impact the quality of recreational experiences and thereby reduce the consumer surplus values for some recreationists. However, consumer surplus for some OHV users could increase, as Alternative C would include an additional open play area that is not part of Alternative A or other alternatives.

In this alternative, the nonmarket values associated with livestock grazing would be similar to Alternative A. With one major exception, most of this alternative's grazing provisions are similar to those of Alternative A, and some appear to be more favorable. The exception is the limitation of total authorized AUMs under Alternative C to the highest level of billed use over the last 10 years (2009 – 2018). The resulting figure of 160,387 AUMs is considerably less than the 231,484 AUMs authorized under Alternatives A and D. However, average historical billed use has been less than 160,387 AUMs, and the alternative allows use up to the highest use since 2009; therefore, the BLM believes that billed use would not be affected by the reduction in authorized AUMs under Alternative C. Therefore, on an overall basis, continuation of livestock grazing operations, and their attendant

nonmarket values such ranching lifestyle and culture values and open space preservation, would be expected. At the same time, adverse nonmarket value impacts from livestock grazing's effects on native/non-native plant dynamics and availability of forage for wildlife would continue.

Use and non-use nonmarket values associated with wild horses would be lowest under Alternative C. This alternative would eliminate all wild horse herds from the analysis area. There would be no public opportunity to view wild horses under this alternative.

Alternative C would result in the lowest levels of other non-use values. It would allow the highest levels of extractive resource development and have the least restrictive policies on locations of such development. As a result, large areas of undeveloped open space that to some people represent the essence of southwestern Wyoming would be reduced, resulting in lower non-use values for people who enjoy the existence of such areas.

Ecosystem service nonmarket values would be less under this alternative than Alternative A and would be less than under the other alternatives. This alternative's greater emphasis on resource development likely would result in impacts to ecological and other natural functions that provide various ecosystem services. For example, provisions under other alternatives that are protective of riparian zones and reduce upland erosion levels would be weaker or would not exist under Alternative C, resulting in lower levels of ecosystem services values associated with water supplies.

## Social Impacts

Based on the analysis presented at the beginning of the Social Impacts subsection for Section 4.23.4, Impacts of Alternative A, social impacts driven by economic changes, such as stresses on community resources and community cohesiveness from high rates of resource development, would be highest under Alternative C. This alternative has the highest projected levels of oil and gas development and production. These levels are only marginally (i.e., under 3%) greater than projected levels under Alternative A, but Alternative C has many provisions that would facilitate achievement of high levels of development activity.

Mineral Development and Production Stakeholders would find this alternative to be most favorable to their interests and values, and to maintenance of the mineral development economy and culture. This alternative has the highest level of projected oil and gas development of all the alternatives. In addition, it carries forward policies that these stakeholders are very familiar with and have largely incorporated into their costs of business. This alternative also has actions that would additionally facilitate resource development relative to Alternative A.

Renewable Energy Stakeholders would generally find this alternative to be most favorable to their interests. It carries forward policies that these stakeholders are very familiar with and have largely incorporated into their costs of business, and it would relax certain polices that could constrain renewable energy development. For instance, these stakeholders would favor the considerable reduction in ROW exclusion areas under this alternative.

Livestock Grazing Stakeholders would generally find this alternative to be most favorable to their interests. Alternative C would generally treat livestock grazing similarly to or more favorably than Alternative A, and much more favorably than Alternative B. Some management actions under Alternative C could allow for increased forage utilization.

Habitat and Resource Conservation Stakeholders would find this alternative unsatisfactory and the least favorable to their interests and values of all the alternatives. They would believe that long-term degradation of natural and cultural resources would result from the high levels of oil and gas development allowed under this alternative and from a range of management actions that ease operational constraints on oil and gas development. Additional actions that facilitate many types of development or remove resource protections relative to Alternative A and the

other alternatives, such as removal of most ROW exclusion areas and all ACEC designations, would be seen by these stakeholders as antithetical to maintenance of natural and cultural resource values.

Recreation Stakeholders would have mixed views on this alternative (as they would with Alternative B, but for different reasons). Many recreational activities would be able to take place under this alternative, much as they would under Alternative A. However, recreationists who prefer quiet recreation experiences and appreciate undeveloped areas and landscapes would have the lowest preference for this alternative, because it would allow more development of oil, gas, and other resources than other alternatives, and because it would place fewer constraints on OHV use than most alternatives, particularly compared to Alternative B. Recreationists who prefer developed recreation facilities would find Alternative C favorable as it has the highest acreage in SRMAs and facilitates recreation development. Recreationists who enjoy OHV use would find this alternative most preferable because it largely maintains access to OHV routes and would establish an additional OHV open play area.

## 4.22.5 Alternative D

### Quantified Economic Impacts

Table N.22 in Appendix N summarizes the annual economic and fiscal impacts of Alternative D by program (resource use) and in total. These estimates are based on the first year of the study period, 2016. For livestock grazing, oil and gas development, coal and soda ash production, and recreation, the BLM assumed that the 2016 level of use would also be the average level of use across every year of the study period, 2016–2031. This assumption was based on the available data. For oil and gas production, use levels and economic impact would increase in every year of the study period as additional wells come into production. The increasing production levels were based on the RFD scenario. Table N.23 presents the cumulative economic and fiscal impacts of Alternative D across the entire study period, based on a discount rate of 3%. Table N.24 presents the cumulative impacts of Alternative D based on a discount rate of 7%. These two tables take into account both the increasing level of oil and gas production in each year of the study period and the time value of money. In the case of employment, which is not subject to discounting for the time value of money, the growth in jobs in oil and gas production across the study period is reflected in the figure for average jobs per year in the net present value tables. These three tables in Appendix N all address the livestock grazing analysis scenario based on historical billed AUMs, and the recreation analysis scenario based the high visitation scenario and using the economic impact (versus economic contribution) perspective.[7] For other scenarios for grazing and recreation, see the earlier section, Summary of the Quantitative Economic Impact Analysis Results.

Key high-level observations regarding the quantified economic impacts for Alternative D compared to Alternative A include:

- Total economic output attributable to BLM-administered land in the RSFO across all programs totals $1.723 billion annually in 2016 in Alternative D. Earnings total $377 million annually. Employment totals 5,398 jobs annually. These values are about 0.7% less than the comparable values for Alternative A.
- Total quantified public revenues in 2016 are 0.7% less in Alternative D than in Alternative A. The state redistributes a small portion of total severance taxes and federal mineral royalties directly to the local communities where the revenues are generated.
- When considered on a net present value basis, the percentage reductions for all economic and public revenue indicators are similar to the 2016 percentage reductions noted above.

[7] *The rationales for these selections are as follows. For grazing, historical billed AUMs are the closest approximation possible for actual historical use, and future use is unlikely to differ dramatically, on average, from historical use. For recreation, the lower visitation scenario would probably under-represent future use given that some growth in recreation use over the study period is likely based on population and outdoor recreation trends, and economic impact is the most analogous analysis with the other resource uses.*

- The quantified impacts of livestock grazing, coal and soda ash production, and recreation are the same under Alternative D as Alternative A.

All quantified economic and public revenue indicators for oil and gas development and production are lower in Alternative D than Alternative A by 1.0%. This is due to the slightly lower number of wells drilled under Alternative D and corresponding reductions in oil and gas production as projected by the RFD scenario.

## Other Market-Based Economic Impacts

Alternative D provides a variety of opportunities to use and develop resources within the planning area while promoting environmental conservation. In general, this means that Alternative D's quantified economic effects are similar to or very slightly reduced relative to Alternative A (as shown above), and its additional economic effects generally are similar to Alternative A, with some aspects similar to Alternative B or C (as discussed below).

Alternative D would allow for a full range of current resource uses, and in some cases increased levels of use commensurate with current or future market conditions (e.g., renewable energy development). It does so while also protecting natural resource values in certain areas. For instance, Alternative D includes 246,634 acres of ACECs that would be managed for conservation, compared to 286,450 under Alternative A. In comparison to Alternative A, Alternative D adds an ACEC (Little Mountain ACEC, 108,010 acres) and does not include seven ACECs. Alternative D would have less land in other management areas than Alternative A (312,980 acres versus 580,010 acres); most notably the Red Desert Watershed Management Area would be reduced in size by about half and renamed the Red Desert Management Area.

Alternative D allows for a wide range of management practices, similar to Alternative A, but in some cases using a broader set of practices. This allows for cost effective management. For instance:

- It would allow use of all available treatment methods and natural processes to manage forest and woodland health.
- It would use best available methods to revitalize decadent forest stands—managing stand density and canopy cover according to silvicultural best practices and individual stand objectives.
- With respect to meeting vegetation management objectives, it would use naturally occurring wildfires, prescribed fire, chemical treatments, biological treatments, mechanical methods, and livestock grazing. This is as in Alternative C and is a broader set of practices than the preferred method of prescribed fire under Alternative A.
- It would use the techniques and BMPs of Integrated Pest Management (a comprehensive approach) to control and prevent the introduction, establishment, and spread of noxious weeds and other invasive species.

Alternative D's setback requirements would generally be greater than those under Alternative A, and similar to but in some cases less than distances under Alternative B. This would provide increase protection of natural values over Alternative A while not including some of the very large setbacks—with potential associated reductions in economic activity—of Alternative B.

Seasonal restrictions (and therefore associated costs) under Alternative D would be similar to or greater than under Alternative A, but generally less than under Alternative B.

Considerably fewer acres would be closed to mineral material sales and disposal under Alternative D than Alternative A (362,009 vs. 833,719 acres). This could allow for increased commercial and local government uses, supporting local economic development.

Activity and implementation plans would have to be prepared (and their costs incurred) in various situations, typically case-by-case, under Alternative D. This is a somewhat reduced requirement compared to Alternative A.

Alternative D would have various mitigation requirements, as do Alternatives A and B. Some of the specifics differ, but the overall effects in terms of mitigation would be similar across Alternatives A, B, and D, but greater than under Alternative C.

The economic effects of Alternative D (but not necessarily the exact management actions) with respect to livestock grazing would be similar to Alternative A. There could be some adjustments to livestock grazing use when land health evaluations, monitoring data or other acceptable scientific analysis demonstrate that changes in grazing management are needed and appropriate.

The economic effects of Alternative D with respect to recreation would be similar to Alternative A, although not all management actions would be the same. Alternative D would have less acreage in SRMAs (135,549 acres) than Alternative A (298,110 acres). It would also have fewer SRMAs: three compared to six under Alternative A.

Alternative D would have largely similar economic effects as Alternative A with respect to rights of way and corridors. It would have less acreage in ROW exclusion area status than Alternative A (286,289 acres versus 426,709 acres) but greater acreage in ROW avoidance areas (1,388,618 acres versus 736,138 acres).

Alternative D would be effectively the same as Alternative A regarding land use authorizations, withdrawals, and land tenure adjustments. Under Alternative D, the BLM would be able to take lands and realty actions to facilitate economic development in a similar way as Alternative A.

As in Alternative A, various management actions under Alternative D would generate economic activity due to the resulting expenditures made in the local and state economies by the BLM or by operators, although the level of economic activity from many of these actions would be small relative to the activity generated by resource uses.

## Impacts on Nonmarket Values

Nonmarket values associated with recreation would be similar to those in Alternative A. Consumer surplus values for non-motorized recreationists may increase relative to Alternative A, due to Alternative D's greater protection of the ecological resources that are valued by many of these recreationists. Consumer surplus values may decrease for some motorized recreationists due to somewhat greater controls on OHV use under Alternative D.

The nonmarket values associated with livestock grazing in this alternative would be similar to Alternative A. In general, the provisions of the two alternatives that affect grazing are similar, at least at the level of overall support to the viability of ranching operations and maintenance of the lifestyle and landscape amenity values associated with ranching. Similarly, adverse nonmarket value impacts from livestock grazing's effects on native/non-native plant dynamics and availability of forage for wildlife would continue.

Use and non-use nonmarket values associated with wild horses would be lower under Alternative D compared to Alternatives A and B, but greater than under Alternative C. This alternative would reduce the number of wild horse HMAs to three and reduce the overall number of wild horses (the AML) compared to Alternatives A and B.

Alternative D would provide variable levels of other non-use values compared to Alternative A and Alternative C, and lower levels than Alternative B. It includes 246,634 acres of ACECs that would be managed for conservation, compared to 286,450 acres under Alternative A, no acres under Alternative C, and 1,605,660 acres under Alternative B. Its setback distance requirements would generally be greater than those under Alternative A, and similar to but in some cases less than setback distances under Alternative A. It would also protect resources

by placing more total acres (2,363,716) in ROW exclusion or avoidance areas than Alternative A (2,282,260) or Alternative C (1,923,088). These and other provisions of Alternative D would help sustain non-use values for people who enjoy the existence of large areas of open space in southwestern Wyoming.

Ecosystem service nonmarket values under Alternative D generally would be similar to Alternative A and in some cases, may be greater. Alternative D, like Alternative A, allows for many resource development opportunities, but provides greater protection for conservation and ecological values generally, and sensitive resources in particular. For instance, Alternative D's setback requirements and seasonal restrictions are typically at least as protective – for instance, of ecosystem service values associated with healthy riparian zones role in supporting human water supplies – as those of Alternative A, and in some cases, are more protective. Alternative A would have somewhat greater acreages than Alternative D in ROW exclusion areas, in ACECs, in areas closed to oil and gas leasing, and in areas managed with NSO or CSU stipulations for oil and gas development. These provisions would tend to protect natural conditions that support water quality and other ecosystem service values.

## Social Impacts

Based on the analysis presented at the beginning of the Social Impacts subsection for Section 4.23.4, Impacts of Alternative A, social impacts driven by economic changes, such as stresses on community resources and community cohesiveness from high rates of resource development, would be similar to Alternative A. The overall level of oil and gas development under Alternative D is only marginally (i.e., about 1% for conventional oil and gas wells) less than under Alternative A. In some localized areas, social impacts might be reduced in Alternative D compared to Alternative A due to provisions of Alternative D that provide greater protection of other resource values on BLM-administered land. Such protections may mitigate some of the social impacts of high levels of oil and gas development and production.

Mineral Development and Production Stakeholders generally would find this alternative conducive to their interests and values. They would find Alternative D less favorable than Alternative C in terms of operational constraints on development. However, Alternative D would be similar to Alternatives A and C in terms of the overall expected level of oil and gas development (marginally fewer wells would be drilled under Alternative D). This group would see Alternative D as providing many economic opportunities from mineral development that support their livelihoods and the economies of local communities, the state, and nation, and would see this alternative as allowing for continuation of the mineral development traditions and customs of many Wyoming residents and communities.

Renewable Energy Stakeholders would view this alternative as similar for their interests to Alternative A, less favorable than Alternative C, and considerably more favorable than Alternative B. A key factor in this perspective would be that Alternative D would have less acreage in ROW exclusion areas but more acreage in ROW avoidance areas than Alternative A, more acres in both types of areas than Alternative C, and much less acreage in ROW exclusion areas than Alternative B.

Livestock Grazing Stakeholders would view this alternative similarly to Alternative A, though perhaps somewhat less favorably. In terms of the quantitative economic impact estimates, this alternative generates the same amount of economic activity as Alternative A. In qualitative terms, Alternative D's provisions are similar in overall effect on livestock operators to those of Alternative A, but there could be some adjustments to livestock grazing use based on the results of Land Health Evaluations. This group would see Alternative D as somewhat less favorable than Alternative C, and more favorable than Alternative B, to their operations and to continuation of the livestock grazing customs and culture of the planning area.

Habitat and Resource Conservation Stakeholders would find this alternative more favorable than Alternative A or C, but less favorable than Alternative B. This view would be based in part on the somewhat lower level of oil and gas development in Alternative D compared to Alternative A or C. In addition, the greater levels of specific, often

area-focused, oil and gas development and operational constraints of Alternative D compared to Alternatives A and C would be seen by this group as more protective of natural and cultural resource values. They would be disappointed that Alternative D has fewer acres in ROW exclusion areas and ACECs than Alternative A. These stakeholders would find this alternative less favorable to their interests and values than Alternative B due to Alternative B's greater levels of area-specific and general resource protections.

Recreation Stakeholders overall would view Alternative D similarly to Alternative A; the recreation policies and levels of resource development are similar. However, views would vary by the type of recreationist. Those who prefer developed recreation opportunities would prefer Alternative A because Alternative D would have less acreage in SRMAs (135,549 vs. 298,110 acres). Recreationists interested in OHV riding opportunities would find Alternative D less preferable to Alternative A because it constrains where OHV users can ride. OHV riders would find Alternative D less preferable than Alternative C and much more preferable than Alternative B. Recreationists who favor quiet recreation and undeveloped open spaces would prefer Alternative D over Alternatives A and C due to Alternative D's greater controls on resource development and OHV use. However, they would prefer Alternative B over Alternative D because Alternative B provides much greater controls on both resource development and OHV use.

## 4.22.6 Proposed RMP

### Quantified Economic Impacts

The Proposed RMP is a combination of management actions from the range of alternatives (primarily from Alternative D and, to a lesser degree, Alternative B) and would have similar impacts as previously described under those alternatives. Appendix N summarizes the annual economic and fiscal impacts of the range of alternatives by program (resource use) and in total. In general, the Proposed RMP would result in increased socioeconomic impacts compared to Alternative B, but less than Alternative D; because of the similarity in management, the BLM anticipates that the Proposed RMP would result in economics effects closer to those predicted for Alternative D. For livestock grazing, oil and gas development, coal and soda ash production, and recreation, the BLM assumed that the 2016 level of use would also be the average level of use across every year of the study period, 2016–2031. This assumption was based on the available data. For oil and gas production, use levels and economic impact would increase in every year of the study period as additional wells come into production. The increasing production levels were based on the RFD scenario.

Impacts from the Proposed RMP on livestock grazing within the planning area are described in further detail in Section 4.16. Availability of land for grazing is the same as under Alternative D. As a result, the socioeconomic impacts of the Proposed RMP are anticipated to be the same as Alternatives A, B, and D as they relate to impacts from livestock grazing, which can be found in Sections 4.22.2 (in Chapter 4), 4.22.3, and 4.22.5 above as well as Appendix N.4.

Impacts from the Proposed RMP on oil and gas development within the planning area are described in further detail in Section 4.11. The Proposed RMP's management actions as they relate to oil and gas development within the planning area would be composed primarily of actions from Alternative D, with some actions from Alternative B. As a result, the socioeconomic impact of the Proposed RMP's management actions on oil and gas development would be between those outlined in Alternatives B and D, which can be found in Sections 4.22.3 and 4.22.5 above as well as Appendix N.4.

Impacts from the Proposed RMP on coal and soda ash production within the planning area are described in further detail in Section 4.11. The Proposed RMP's impacts on coal and soda ash production is anticipated to be a combination of Alternatives A and D. As a result, the socioeconomic impacts in the planning area from management actions on coal and soda ash production are expected to remain the same as under Alternatives A, B, C and D, which can be found in Sections 4.22.2 (in Chapter 4) through 4.22.5 above as well as Appendix N.4.

Impacts from the Proposed RMP on recreation within the planning area are described in further detail in Section 4.17. Ranges in visitation are expected to remain the same as under Alternatives A, B, C, and D, and would not result in significant changes to the socioeconomic contribution of recreation to the planning area; details of the socioeconomic impacts can be found in Sections 4.22.2 (in Chapter 4) through 4.22.5 above as well as Appendix N.4.

Key high-level observations regarding the quantified economic impacts for the Proposed RMP compared to Alternative A include:

- Total economic output attributable to BLM-administered land in the RSFO across all programs ranged between $0.827 (Alternative B prediction) and $1.723 (Alternative D prediction) billion annually in 2016. Earnings total between $167 and $377 million annually. Employment totals are between 2,515 and 5,398 jobs annually. These values are less than the values for Alternatives A and C.
- Total quantified public revenues in 2016 ranged between 0.7% (Alternative D prediction) and 62.3% (Alternative B prediction) less for the Proposed RMP than for Alternative A. The state redistributes a small portion of total severance taxes and federal mineral royalties directly to the local communities where the revenues are generated.
- When considered on a net present value basis, the percentage reductions for all economic and public revenue indicators are similar to the 2016 percentage reductions noted above.
- The quantified impacts of coal and soda ash production, and recreation are the same under the Proposed RMP as under Alternative A.

## Other Market-Based Economic Impacts

As detailed in Sections 4.11 (oil and gas development, coal and soda ash production), 4.16 (livestock grazing), and 4.17 (recreation), the impacts of the Proposed RMP would be a combination of Alternatives D and (to a lesser extent) Alternative B; as a result, the additional market-based socioeconomic impacts related to the Proposed RMP would be a combination of those outlined in Sections 4.22.3 and 4.22.5.

As in Alternative A, various management actions under the Proposed RMP would generate economic activity due to the resulting expenditures made in the local and state economies by the BLM or by operators, although the level of economic activity from many of these actions would be small relative to the activity generated by resource uses.

## Impacts on Nonmarket Values

Many nonmarket values associated with ecosystem services would be greater under the Proposed RMP than under Alternative A. The Proposed RMP's greater focus on habitat conservation and lower levels of resource development would be more likely to support higher levels of ecological and other natural functions that provide various ecosystem services. The Proposed RMP's impact on nonmarket values would be a combination of the impacts on nonmarket values from Alternative D and (to lesser extent) Alternative B described above.

## Social Impacts

Based on the analysis presented at the beginning of the Social Impacts subsection for Section 4.22.2, Impacts of Alternative A, social impacts driven by economic changes, such as stresses on community resources and community cohesiveness from high rates of resource development, would be reduced in the Proposed RMP relative to Alternative A due to the lower levels of oil and gas development resulting. These impacts would be between those outlined in Alternative B and Alternative D. Livestock, coal and soda ash, and recreation stakeholders would view the Proposed RMP similarly to Alternative A, while oil and gas stakeholders would find

the Proposed RMP more conducive to their interests than Alternative B, but less conducive to their interests than Alternative D.

## 4.22.7 Environmental Justice Impacts

The Socioeconomic Baseline Report presents the methodology for screening the socioeconomic study area for potential EJ populations, and the results. Once potential EJ populations are identified, EJ impact analysis consists of determining if the subject populations would experience disproportionately high and adverse environmental or human health effects under one or more of the management alternatives. Environmental health effects may include cultural, economic, or social impacts when those impacts are interrelated to impacts on the natural or physical environment. EJ impacts would not vary across alternatives.

The following places in the socioeconomic study area were flagged as areas of potential concern from an EJ perspective, for the populations noted. Asterisks and bold italicized font indicate places that are located within or immediately adjacent to the RSFO. Places without this notation are within the socioeconomic study area but further from the RSFO boundary.

### Fremont County

- Arapahoe census-designated place (CDP) for Native American minority population and population in poverty (all ages, related children under 18, families).
- Atlantic City CDP for population in poverty (all ages, 65 and older, families).
- Boulder Flats CDP for population in poverty (all ages, related children under 18).
- Crowheart CDP for Native American minority population and population in poverty (all ages, related children under 18, families).
- Ethete CDP for Native American minority population and population in poverty (all ages, related children under 18, 65 and older, families).
- Fort Washakie CDP for Native American minority population and population in poverty (65 and older).
- Hudson Town for population in poverty (families).
- Johnstown CDP for Native American minority population.
- Shoshoni Town for population in poverty (all ages, related children under 18).
- In addition, the Wind River Indian Reservation is flagged because of its status as an Indian reservation.
- The county as a whole has a Native American minority population that exceeds the threshold value as defined above. However, the place-specific data, including the presence of the Indian Reservation, likely provide the relevant analytical focus for the Rock Springs RMP.

### Lincoln County

- Afton Town for population in poverty (related children under 18).
- Alpine Northeast CDP for population in poverty (all ages).
- Auburn CDP for population in poverty (all ages, related children under 18, families).
- Bedford CDP for population in poverty (65 and older).
- ***La Barge Town**** for population in poverty (related children under 18).

- Thayne Town for population in poverty (65 and older).
- Turnerville CDP for population in poverty (all ages, 65 and older).

## Sublette County

- Big Piney Town for population in poverty (related children under 18).
- Daniel CDP for population in poverty (all ages).

## Sweetwater County

- Bairoil Town for Hispanic minority population.
- ***Clearview Acres CDP**** for Hispanic minority population.
- ***James Town CDP**** for population in poverty (65 and older).
- Little America CDP for minority population (Some Other Race, and Hispanic).
- ***Purple Sage CDP**** for minority population (Some Other Race, and Hispanic) and population in poverty (all ages, related children under 18, families).
- Wamsutter Town for Hispanic minority population.
- ***Washam CDP**** for population in poverty (all ages, 65 and older, families).

## Uinta County

- No places flagged for minority populations or populations in poverty.

This planning-level effort does not approve or commit to any specific projects and therefore does not analyze the environmental, economic, or social impacts of unknown future projects. Without specific implementation-level (project-level) information, it is impossible to fully analyze the potential for EJ impacts. Further EJ analysis will be conducted during implementation for project-specific NEPA analyses. During implementation of a specific project or response to a project application, that process will consider reasonable mitigation measures within our authority, as well as other resource protection measures already in place that may benefit EJ communities. However, the following comments address the general potential for EJ impacts to occur.

For Fremont County, none of the alternatives would create disproportionately high and adverse environmental or human health effects on the identified communities or the county's population of Native Americans. Only a small portion of the RSFO is located within Fremont County, in a very sparsely populated portion of the county, and the communities identified above as having potential EJ populations are all located at a considerable distance from the RSFO. Thus, it is unlikely that direct environmental or human health effects (if any) of management actions in the RSFO would have disproportionate impacts on the identified populations. Further, the economic effects of management actions in the RSFO would be attenuated in Fremont County since most of the support for economic activity on BLM-administered lands in the northeastern portion of the RSFO comes from Sweetwater County, not Fremont County. For instance, this is shown by employment statistics of the U.S. Bureau of Labor Statistics. In 2010, a total of 3,123 people in Sweetwater County were employed in oil and gas industry sectors, while only 683 people were employed in these sectors in Fremont County.[8] It is likely that only a small portion of Fremont County workers serve the RSFO, and only a portion of those workers are Native Americans or lives in one of the identified

[8] *The following sectors under the North American Industry Classification System (NAICS) were included: 211 - Oil and Gas Extraction, 213111 - Drilling Oil and Gas Wells, and 213112 - Support Activities for Oil and Gas Operations*

communities. Most importantly, it is unlikely that any adverse impacts would fall disproportionately on the EJ populations within this workforce.

In Lincoln County, all the identified communities, with one exception, are located at considerable distance from the boundaries of the RSFO and thus would be unlikely to disproportionately experience any adverse impacts of RSFO management actions. The exception to this locational pattern is La Barge, which is located on the edge of the northwest corner of the RSFO, and in close proximately to an area within the RSFO (and outside the RSFO) that is experiencing very high levels of gas development. The only population in La Barge that met the EJ screening criteria is population of related children under the age of 18 that are in poverty. It is possible that gas development could have adverse health impacts on the EJ population of La Barge. However, in all alternatives any adverse impacts would affect all and any foregone benefits would either accrue to or be foregone for all populations, not just the potential EJ population identified in La Barge. There would be no disproportionality of impacts. Therefore, the impacts would not be considered EJ impacts.

In Sublette County, the community of Daniel is located at considerable distance from the RSFO and would be unlikely to experience any disproportionate adverse impacts from RSFO management actions. The community of Big Piney is within 10-15 miles of the RSFO boundary, in proximity to a portion of the RSFO that is experiencing very high levels of gas development. As with La Barge, the EJ population is related children under the age of 18 that are in poverty. A similar logic with respect to adverse health impacts would apply to Big Piney.

For Sweetwater County, the communities of Wamsutter and Bairoil are located at considerable distance from the boundaries of the RSFO and thus would be unlikely to disproportionately experience any adverse impacts. The community of Little America is also at some distance from the RSFO boundary. Four identified communities in Sweetwater County are located within the boundaries of the RSFO. The communities of Clearview Acres, James Town, and Purple Sage are located in the central portion of Sweetwater County between Rock Springs and Green River. They are not in proximity to any areas that would be expected to see high levels of resource development. The community of Washam is located in the southwest section of the county, not far from Flaming Gorge Reservoir. It is also not in proximity to any high resource development areas. Thus, based on the low likelihood of oil and gas resource development, the potential EJ populations in these four communities would be unlikely to disproportionately experience any adverse environmental (including economic) or human health impacts from RSFO management actions. However, future impacts to these EJ populations based on unforeseen future resource development or other actions (e.g., land authorizations, development of other minerals) cannot be ruled out in this planning-level EIS. The potential for impacts would need to be assessed at the implementation level.

Environmental justice guidance also directs the BLM to consider potential impacts on Tribes. The BLM has continued to consult and coordinate with Tribes to identify whether any Native American cultural values, religious beliefs, or traditional practices could be affected. The BLM has considered all input from persons or groups regardless of age, income status, race, or other social or economic characteristics. The outreach and public involvement activities taken by the RSFO for this planning effort are discussed in Chapter 5.

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# APPENDIX V—CHAPTER 2 INTRODUCTION AND ACREAGE TABLES

## 2.2 DEVELOPMENT OF ALTERNATIVES

### 2.2.1 Purpose of Alternatives Development

The basic goal of alternatives development is to produce distinct potential management scenarios that:

- Address the identified major planning issues
- Explore opportunities to enhance management of resources and resource uses
- Resolve conflicts among resources and resource uses
- Meet the purpose of and need for the Resource Management Plan (RMP) revision

Pursuit of this goal provides the Bureau of Land Management (BLM) and the public with an appreciation for the diverse ways in which conflicts regarding resources and resource uses might be resolved and offers the decisionmaker a reasonable range of alternatives from which to make an informed decision.

### 2.2.2 Components of Alternatives

Alternatives include potential RMP decisions that consist of identifying and clearly defining goals and objectives (desired outcomes) for resources and resource uses, followed by developing allowable uses and management actions necessary for achieving the goals and objectives. Goals are broad statements of desired outcomes and are not quantifiable or measurable. Objectives are specific measurable desired conditions or outcomes intended to meet goals. Objectives may vary across alternatives, resulting in different allowable uses and management actions for some resources and resource uses.

Management actions and allowable uses are designed to achieve objectives. Management actions are measures that guide day-to-day and future activities. Allowable uses delineate which uses are permitted, restricted, or prohibited, and may include stipulations or restrictions. Allowable uses also identify lands where specific uses are excluded to protect resource values, or where certain lands are open or closed in response to legislative, regulatory, or policy requirements. Implementation decisions are site-specific on-the-ground actions, and although they can be addressed in RMPs, this plan does not propose any implementation-level decisions.

### 2.2.3 Alternatives Development Process

The BLM complied with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) implementing regulations at 40 Code of Federal Regulations (CFR) 1500 in the development of alternatives for this final EIS, including seeking public input and analyzing reasonable alternatives. Where necessary to meet the planning criteria, to address issues and comments from cooperating agencies and the public, or to provide a reasonable range of alternatives, the alternatives include management options for the planning area that would modify or amend decisions made in the Green River RMP and Jack Morrow Hills (JMH) Coordinated Activity Plan (CAP). Some decisions from these existing plans may still be considered acceptable and reasonable; in these instances, there is limited need to develop alternative management prescriptions. In some cases, management prescriptions are the same across all alternatives or may reflect only a decision to implement or not implement an action.

Many of the decisions from the existing Green River RMP and JMH CAP have been implemented. In some cases, implementation of these decisions established valid existing rights or other obligations that are important considerations in preparing the Rock Springs RMP. For example, many of the oil and gas resources in the planning area are leased. The presence of these valid existing rights influences, and sometimes limits, management choices. Specific to the oil and gas program, the alternatives in this final EIS address the availability and allocation of lands for future oil and gas leasing, potential lease stipulations, and additional mitigation to be considered and applied during the Application for Permit to Drill (APD) process.

The development of alternatives began with compiling Alternative A. Alternatives B and C were then developed, followed by the analysis of all three alternatives. The BLM and cooperating agencies reviewed the analysis of Alternatives A, B, and C and considered the information and conclusions contained in the analysis to develop Alternative D, which was developed last. Public input received during the scoping process was considered to ensure that all issues and concerns would be addressed, as appropriate, in developing the alternatives. Following and in consideration of public comments on the draft EIS, the BLM developed its Proposed RMP alternative, which was built off of management actions previously considered and analyzed in Alternatives A, B, C, and D. .

### 2.2.4 Overview of the Alternatives

Resources on lands administered by the BLM within the planning area are currently managed under the Green River RMP (1997) and JMH CAP (2006), as amended. Management under Alternative A represents a continuation of these management plans, which balances protection of resource values with the use and development of resources.

Alternative B emphasizes conservation of resource values with constraints on resource uses. Relative to all alternatives, Alternative B conserves the most land area for physical, biological, and cultural resources. Alternative B emphasizes the improvement and protection of habitat for wildlife and sensitive plant and animal species, improvement of riparian areas, and implementation of management actions that improve water quality and enhance protection of cultural resources.

Alternative C emphasizes resource uses (e.g., energy and mineral development and other commodity uses). Relative to all alternatives, Alternative C proposes the least restrictive management actions for energy and commodity development and the least protective management actions for physical, biological, and cultural resources while maintaining protections required by laws and regulations. Under this alternative, development and use of resources within the planning area would occur with intensive management of surface disturbing and disruptive activities.

Alternative D explores a management approach that is less restrictive for resource uses than Alternative B, while also having a greater conservation focus than Alternative C. This approach allows for opportunities to use and develop resources within the planning area while promoting environmental conservation.

The Proposed RMP provides the second most protection (less than Alternative B) for physical and natural resources and more protection than Alternatives A, C, and D. Socioeconomic impacts would be greater than under Alternatives A, C, and D with more areas closed for mineral development, but less than under Alternative B. Many management actions allow for flexibility to review activities on a case-by-case basis to determine impacts based on local conditions and to balance resource protection with resource uses.

## Table 2-3. Areas Proposed for Withdrawal from Mineral Location

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| **PROPOSED WITHDRAWAL FROM MINERAL LOCATION** | | | | | |
| Big Game Migration Corridor Area of Critical Environmental Concern (ACEC) | -- | X | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Boars Tusk | -- | X | -- | -- | X |
| Boars Tusk (90 acres) | X | -- | -- | -- | -- |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | X | X | -- | X | X |
| Cedar Canyon, LaBarge Bluffs, Tolar, and other significant rock art sites and ½-mile viewshed | X | -- | -- | -- | - |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites and three-mile viewshed | -- | X | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites (viewshed not included) | -- | -- | -- | X | X- |
| Cedar Canyon ACEC | X | -- | -- | -- | -- |
| Crookston Ranch – Jack Morrow Hills (JMH) | X | -- | -- | -- | -- |
| Crookston Ranch Historic Site | -- | -- | -- | X | X |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |
| Elk birthing areas (northern) – JMH | X | -- | -- | -- | -- |
| Emmons Cone | -- | -- | -- | X | -- |
| Four J Basin Portion of the Pine Mountain Management Area | X | X | -- | -- | -- |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC – Currant Creek Watershed | X | -- | -- | -- | -- |
| Greater Red Creek ACEC – Red Creek Watershed | X | X | -- | -- | -- |
| Greater Sand Dunes ACEC (western portion) – JMH | X | -- | -- | -- | -- |
| Greater Sand Dunes ACEC | X | -- | -- | -- | -- |
| Killpecker Sand Dunes Special Recreation Management Area (SRMA) | -- | -- | X | X | X |
| Lands with Wilderness Characteristics | -- | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Little Firehole's Cottonwood Canyon area | -- | X | -- | X | -- |
| Little Mountain ACEC | -- | -- | -- | X | X |
| Monument Valley ACEC | -- | X | -- | -- | -- |
| Monument Valley Management Area | X | -- | -- | -- | -- |
| Oregon Buttes ACEC | -- | X | -- | -- | -- |
| Pilot Butte | -- | -- | -- | X | -- |
| Pine Springs ACEC | -- | X | -- | X | X |
| Pinnacles ACEC | -- | X | -- | -- | X |
| Pinnacles Geologic Feature | X | X | -- | X | X |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | X | X | -- | X | X |
| Special status plant known locations (limber pine exception) | -- | X | -- | -- | X |
| Special Status Plants ACEC | X | X | -- | -- | X |
| Steamboat Mountain ACEC | -- | X | -- | -- | X |
| South Pass Historic Landscape ACEC | X | X | -- | X | X |
| South Pass Summit – JMH | X | -- | -- | -- | -- |
| South Wind River ACEC | -- | X | -- | -- | X |
| Sweetwater Bridge and Guard Station campgrounds | X | -- | X | X | X |
| Tri-Territory Marker | X | X | X | X | X |
| White Mountain Petroglyphs ACEC | X | X | -- | -- | X |
| Wind River Front Special Recreation Management Area (SRMA) (suitable sites along the river) | X | -- | -- | -- | -- |
| Within five miles of National Historic Trails (NHT) | -- | X | -- | -- | -- |
| Within ½ mile of historic roads and trails—including, but not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails. And within five miles of the trails for highly visible projects | -- | X | -- | -- | -- |
| Wilderness Study Areas (WSA) | - | - | - | - | - |
| **Total Acres** | **556,558** | **1,993,908** | **234,961** | **482,272** | **900,204** |

## Table 2-4. Fluid Mineral Restrictions

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| **CLOSED TO FLUID MINERAL LEASING** | | | | | |
| Aquifer recharge area for the towns of Superior and McKinnon | -- | -- | -- | X | X |
| Big Game Migration Corridor ACEC | -- | X | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Boars Tusk | -- | X | -- | -- | -- |
| Cedar Canyon ACEC | -- | X | -- | -- | -- |
| Crookston Ranch | -- | X | -- | -- | -- |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Currant Creek Portion | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Red Creek Portion | X | X | -- | -- | -- |
| Greater Red Creek ACEC, Salt Wells Portion | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Sage Creek Portion | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Sugarloaf Basin Portion | -- | X | -- | -- | -- |
| Greater Sand Dunes ACEC, Eastern portion within Area 3 (6,750 acres) – JMH | X | -- | -- | -- | -- |
| JMH Area 3 (216,343 acres) | -- | X | -- | X | X |
| JMH Area 3 (184,064 acres) | X | -- | -- | -- | - |
| Killpecker Sand Dunes SRMA | -- | -- | -- | X | X |
| Lands with Wilderness Characteristics | -- | X | -- | -- | -- |
| Little Mountain ACEC | -- | -- | -- | X | X |
| Mechanically Mineable Trona Area | -- | X | -- | X | X |
| Monument Valley ACEC (federal sections) | -- | X | -- | -- | -- |
| National Historic Trails—5 miles from each side of the trail | -- | X | -- | -- | -- |
| Natural Corrals ACEC | -- | X | -- | -- | X |
| Oregon Buttes ACEC | X | X | -- | X | X |
| Pine Springs ACEC | -- | X | -- | -- | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Pinnacles Geographic Area | X | -- | -- | -- | -- |
| Pinnacles Geologic Feature (JMH) | X | -- | -- | -- | -- |
| Portions of Little Mountain Area | X | X | -- | -- | -- |
| South Pass Historic Landscape ACEC | -- | X | -- | -- | -- |
| South Wind River ACEC | -- | X | -- | -- | X |
| Steamboat Mountain ACEC (less the area that is no surface occupancy [NSO]) – JMH | X | -- | -- | X | X |
| Sweetwater County Growth Management Area | -- | X | -- | X | X |
| Tri-Territory marker | X | X | X | X | X |
| Wild and Scenic River, Wild Classification (½ mile) | X | X | -- | -- | -- |
| Wild and Scenic River, Scenic Classification (½ mile) | X | X | -- | -- | X |
| Wild and Scenic River, Recreational Classification (½ mile) | X | X | -- | -- | X |
| Wilderness Study Areas | X | X | X | X | X |
| Wind River Front (Eastern Unit) | X | X | -- | X | X |
| **Total Acres** | **540,021** | **2,186,218** | **225,782** | **768,989** | **1,076,039** |
| **NO SURFACE OCCUPANCY (NSO)** | | | | | |
| 100-year floodplains, wetlands, and riparian areas | X | -- | -- | -- | -- |
| 14-Mile Recreation Area | X | -- | -- | -- | -- |
| Active raptor nests (within ½ mile) | X | -- | -- | -- | -- |
| Active and historic raptor nests (within one mile) | -- | X | -- | -- | -- |
| Adobe Town and Desolation Flat/Desolation Point Paleontological sites | -- | X | -- | -- | -- |
| Areas of shallow, unconfined aquifers | -- | X | -- | -- | -- |
| Big game crucial winter ranges, parturition areas, connectivity corridors and transitional habitats | -- | X | -- | -- | -- |
| Big game migration corridors (within ½ mile) | -- | X | -- | -- | -- |
| Big Sandy River and ½-mile buffer (1.5 miles) | X | -- | -- | -- | -- |
| Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon, the Bozovich site complex, or other areas with high cultural site density | -- | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Boars Tusk (90 acres) | X | X | X | X | X |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | X | X | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, ½-mile viewshed | X | -- | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar White Mountain Petroglyphs, and other significant rock art sites | -- | -- | -- | X | X |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed | -- | X | -- | -- | -- |
| Crookston Ranch | X | -- | -- | X | X |
| Crookston Ranch + 100-foot buffer | X | -- | -- | -- | -- |
| Developed recreation sites, ¼ mile | -- | -- | -- | X | X |
| Developed recreation sites, 3 miles or visual horizon | -- | X | -- | -- | -- |
| Emmons Cone | X | X | X | X | X |
| Four J Basin Portion of Pine Mountain Management Area | X | X | -- | -- | -- |
| Greater Red Creek ACEC, Currant Creek Portion | X | -- | -- | -- | -- |
| Greater Sand Dunes ACEC (developed recreation sites and ORV parking lot) | X | -- | -- | -- | -- |
| Historic roads and trails: up to two miles on each side of the intact road or trail segment unless the proposed project and its associated impacts are not visible from the road or trail | -- | X | -- | -- | -- |
| Indian Gap + 100-foot buffer | X | -- | -- | -- | -- |
| JMH Area 3, approximately 35,500 acres along the perimeter | X | -- | -- | -- | -- |
| Killpecker Sand Dunes SRMA | -- | -- | X | -- | -- |
| Known human burial sites | X | X | X | X | X |
| Little Firehole's Cottonwood Canyon | -- | X | -- | X | -- |
| Natural Corrals | -- | -- | -- | X | X |
| Natural Corrals ACEC | X | -- | -- | -- | X |
| North and South Table Mountains | X | -- | -- | -- | -- |
| Oregon and Mormon Pioneer National Historic Trails SRMA | -- | -- | X | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Oregon Buttes ACEC | X | | -- | | -- |
| Parting-of-the-Ways Historical Site | -- | -- | -- | X | X |
| Pilot Butte | X | X | X | X | X |
| Pine Butte | X | -- | -- | -- | -- |
| Pine Mountain escarpment and toe slopes | X | -- | -- | -- | -- |
| Pine Mountain Management Area, Salt Wells portion | -- | X | -- | -- | -- |
| Pine Springs | -- | -- | ---- | X | X |
| Pine Springs ACEC | X | -- | -- | -- | -- |
| Pinnacles Geographic Area along perimeter –within JMH Area 3 (1,200 acres) | X | -- | -- | -- | -- |
| Pinnacles Geologic Feature | -- | -- | -- | X | -- |
| Portions of Little Mountain Area | -- | X | -- | -- | -- |
| Raptor nesting (occupied nests, cliffs, bluffs, roosts, outcrops and pinnacles) | X | -- | -- | -- | -- |
| Recreation sites + ¼-mile buffer | X | -- | -- | -- | -- |
| Riparian areas, wetlands, perennial streams, 100-year floodplains and the area within 1,320 feet (¼ mile) of these areas; and within 500 feet of the edge of the inner gorge of large ephemeral drainages | -- | X | -- | -- | -- |
| Sensitive resources – JMH | X | -- | -- | -- | X |
| Soils: highly erodible, saline, sodic, saline-sodic, 2:1 clays, and in sand dunes, slopes greater than 25%, soil slumps and creeps, soils sensitive to compaction and/or rutting, and areas that are difficult to reclaim | -- | X | -- | -- | -- |
| South Pass Historic Landscape (area visible within 1-mile buffer of Lander Cutoff and area visible within 3-mile buffer of Oregon Trail) | X | -- | -- | -- | -- |
| Special Status Plant Species ACEC | X | X | -- | X | X |
| Special Status Plant Species – known locations | X | -- | -- | -- | -- |
| Special Status Plant Species – known and potential habitat (limber pine exception) | -- | X | -- | -- | -- |
| Steamboat Mountain ACEC | -- | X | -- | -- | X |
| Sugarloaf Basin Management Area | -- | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Town of Superior water recharge area | -- | X | -- | -- | -- |
| White Mountain Petroglyphs ACEC | X | X | -- | -- | X |
| Wild horse herd viewing area + ½-mile buffer | X | X | -- | -- | -- |
| Wind River Front (Eastern Unit) | -- | -- | -- | -- | -- |
| Within 100 feet of known locations of Special Status plant species | -- | -- | -- | X | -- |
| Within 500 feet of eligible historic roads and trails | -- | -- | -- | X | X |
| **Total Acres** | **158,611** | **813,354** | **15,542** | **2,172** | **215,437** |
| **CONTROLLED SURFACE USE (CSU)** | | | | | |
| ACECs + expansions – JMH | X | -- | -- | -- | -- |
| Active raptor nests (within ½ mile) | -- | -- | X | -- | -- |
| Aquifer recharge area for the towns of Superior and McKinnon | -- | -- | X | -- | -- |
| Areas adjacent to WSAs – JMH | X | -- | -- | -- | -- |
| Areas around or adjacent to local communities or occupied dwellings. | X | -- | -- | -- | -- |
| Areas with low reclamation potential (as per Natural Resources Conservation Service soil rating) | -- | -- | -- | X | X |
| Big Game Migration Corridor | -- | -- | -- | X | X |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | -- | -- | -- | X | X |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain Petroglyphs viewsheds, ½-mile setting buffer (excluding sites) | -- | -- | -- | X | X |
| Continental Divide National Scenic Trail and Connecting Side Trail | -- | -- | X | -- | -- |
| Continental Divide Snowmobile Trail, Continental Divide National Scenic Trail, South Pass Cross Country Ski Trail, ¼ mile of trail | X | -- | X | -- | -- |
| Continental Divide Snowmobile Trail, Continental Divide National Scenic Trail, South Pass Cross Country Ski Trail, 5 miles to 15 miles of trails or visual horizon | -- | X | -- | -- | -- |
| Dry Sandy Swales | X | X | X | -- | X |
| Farson Fossil Fish Beds | -- | -- | -- | X | X |
| Highly erodible soils | X | -- | -- | X | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Historic Roads and Trails within the areas of 2 to 5 miles on each side of the intact road or trail segment unless the proposed project and its associated impacts are not visible from the road or trail | -- | X | -- | -- | -- |
| JMH Area 2 | X | X | -- | X | X |
| | | | | | |
| Mechanically Mineable Trona Area | -- | -- | X | -- | -- |
| Monument Valley | X | -- | -- | -- | -- |
| National Historic Trails—within 5 to 15 miles from each side of the trail | -- | X | -- | -- | -- |
| National Trail Management Corridor (5 miles) | -- | -- | -- | X | X |
| Pine Mountain | X | -- | -- | -- | -- |
| Pine Mountain Management Area | X | -- | -- | X | -- |
| Portion of White Mountain – JMH | X | -- | -- | -- | -- |
| Portions of Little Mountain Area | -- | X | -- | -- | -- |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | X | X | -- | -- | -- |
| Raptor nests:<br>• Ferruginous hawk – ½ mile<br>• Bald eagle – 1 mile<br>• Golden eagle – ¼ mile<br>• Burrowing owl – ¼ mile<br>General raptor – ¼ mile | -- | -- | -- | X | X |
| Red Desert Management Area | -- | -- | -- | X | -- |
| Red Desert Watershed Management Area – JMH | X | -- | -- | -- | -- |
| Sage Creek Watershed | X | -- | -- | -- | -- |
| Slopes > 20% – JMH | X | -- | -- | -- | -- |
| Slopes greater than 25% | X | -- | -- | -- | -- |
| Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain | X | X | -- | X | X |
| South Pass Historic Landscape (area not visible within 1-mile buffer of Lander Cutoff and area not visible within 3-mile buffer of Oregon Trail) | X | -- | -- | -- | -- |
| South Pass Historic Landscape ACEC | -- | -- | -- | X | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Special status plant species potential habitat – JMH | X | -- | -- | -- | -- |
| Steamboat Mountain ACEC | -- | -- | -- | -- | -- |
| Steamboat Mountain Crucial Overlap | X | -- | -- | -- | --- |
| Steamboat Mountain Management Area – JMH | X | -- | -- | -- | -- |
| Sugarloaf Basin Management Area | X | -- | -- | X | X |
| The area within 500 feet of wetlands, riparian areas, and 100-year floodplains and the area within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages | X | -- | -- | -- | -- |
| View from Fontenelle Reservoir | X | -- | -- | -- | -- |
| Visual Resource Management (VRM) Class II Lands | X | -- | -- | -- | -- |
| Wild and Scenic Rivers (all classifications) | -- | -- | -- | X | X |
| Wind River Front (Western Unit) | X | X | -- | -- | -- |
| Within ¼ mile of Sweetwater River (Recreational part, 3.4 miles) | X | -- | -- | -- | -- |
| Within ¼ mile of the Overland and Cherokee Trails | -- | -- | -- | X | -- |
| Within 100 year floodplains; ¼ mile of wetlands, riparian areas, and perennial streams; 500 feet of the outer edge of wetland/riparian areas or perennial streams; and 100 feet of the edge of the inner gorge of intermittent channels or ephemeral drainages | -- | -- | -- | X | X |
| **Total Acres** | **721,132** | **99,674** | **215,890** | **1,238,899** | **1,116,266** |
| **SEASONAL RESTRICTIONS** | | | | | |
| Big Game Birthing Areas (May 1 to June 30) | X | X | X | X | X |
| Big Game Crucial Winter Range (November 15 to April 30) | X | X | X | X | |
| Eastern Portion of the Greater Sand Dunes Area—crucial big game winter ranges, big game birthing areas, and winter concentration areas | X | X | -- | -- | X |
| Elk Calving Areas | X | -- | -- | -- | -- |
| Fisheries: ¼-mile riparian area buffer, March 15 to July 31 and September 15 to November 30 | -- | X | -- | -- | -- |
| Mountain plover active nests (¼-mile buffer; April 10-July 10) | -- | -- | -- | X | X |
| Mountain plover aggregation areas (¼-mile buffer; April 10-July 10) | X | X | -- | -- | -- |
| Mountain plover aggregation areas (100-foot buffer; April 10-July 10) | -- | -- | X | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Raptor nests (occupied), ½-mile buffer | -- | -- | X | -- | -- |
| Raptor nests (occupied) ½- to 1-mile buffer | X | -- | -- | -- | -- |
| Raptor nests: active and historic, ¼- to 2 ½-mile buffer | -- | -- | -- | X | X |
| Raptor nests: active, historic and associated feeding grounds, 2-mile buffer | -- | X | -- | -- | -- |
| Steamboat Mountain ACEC—Elk and mule deer crucial winter and parturition habitats, raptor nesting and associated feeding areas | -- | X | -- | -- | X |
| **Total Acres** | **1,840,967** | **713,837** | **1,355,485** | **1,911,167** | **526,067** |

Table 2-5 shows the number of acres of BLM mineral estate that is subject to leasing restrictions for conventional oil and gas exploration and development. The acreage values provided in the table are organized by the type and level of restriction and mineral potential.

**Table 2-5. Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential (Approximate Federal Subsurface Acres) for Conventional Oil and Gas**

| Fluid Mineral Lease Conditional Requirement | Hydrocarbon Development Potential (acres) | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Very Low | Low | Moderate | High | Very High | Total[3] |
| **ALTERNATIVE A (NO ACTION ALTERNATIVE)** | | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 66 | 387,459 | 221,982 | 110,226 | 68,161 | 80,733 | **868,628** |
| Available for Leasing, Subject to Moderate Constraints[1] | 68,574 | 1,201,635 | 287,918 | 127,012 | 58,656 | 234,306 | **1,978,101** |
| Available for Leasing, Subject to Major Constraints[1] | 57,812 | 282,908 | 76,642 | 54,646 | 17,260 | 29,051 | **518,318** |
| Closed to Leasing[2] | 104,413 | 217,728 | 8,215 | 5,583 | 0 | 0 | **335,939** |
| **ALTERNATIVE B** | | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 0 | 165,024 | 63,561 | 26,299 | 7,534 | 5,010 | **267,428** |
| Available for Leasing, Subject to Moderate Constraints[1] | 0 | 53,771 | 23,876 | 18,217 | 15,338 | 16,228 | **127,431** |

| Fluid Mineral Lease Conditional Requirement | Hydrocarbon Development Potential (acres) | | | | | | |
|---|---|---|---|---|---|---|---|
| | **None** | **Very Low** | **Low** | **Moderate** | **High** | **Very High** | **Total[3]** |
| Available for Leasing, Subject to Major Constraints[1] | 18 | 418,417 | 222,357 | 70,341 | 34,852 | 69,621 | **815,607** |
| Closed to Leasing[2] | 230,847 | 1,452,518 | 284,961 | 182,609 | 86,354 | 253,231 | **2,490,520** |
| **ALTERNATIVE C** | | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 14,795 | 848,588 | 395,278 | 194,288 | 83,947 | 126,804 | **1,663,700** |
| Available for Leasing, Subject to Moderate Constraints[1] | 206,197 | 1,171,316 | 189,839 | 97,540 | 57,547 | 206,197 | **1,929,044** |
| Available for Leasing, Subject to Major Constraints[1] | 9,465 | 69,749 | 9,639 | 5,638 | 2,582 | 11,089 | **108,163** |
| Closed to Leasing[2] | 0 | 79 | 0 | 0 | 0 | 0 | **79** |
| **ALTERNATIVE D** | | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 1 | 403,441 | 211,358 | 100,549 | 45,638 | 56,762 | **817,748** |
| Available for Leasing, Subject to Moderate Constraints[1] | 129,725 | 1,408,399 | 342,160 | 166,788 | 95,046 | 276,239 | **2,418,296** |
| Available for Leasing, Subject to Major Constraints[1] | 101,140 | 64,944 | 9,176 | 5,726 | 2,579 | 11,089 | **194,654** |
| Closed to Leasing[2] | 32,062 | 213,007 | 32,062 | 24,404 | 815 | 0 | **270,287** |
| **PROPOSED RMP** | | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 756 | 581,677 | 262,446 | 133,063 | 73,257 | 89,294 | **1,140,492** |
| Available for Leasing, Subject to Moderate Constraints[1] | 60,765 | 609,829 | 229,989 | 114,376 | 59,163 | 247,002 | **1,321,123** |
| Available for Leasing, Subject to Major Constraints[1] | 5,558 | 182,440 | 13,611 | 4,713 | 1,321 | 7,794 | **215,437** |
| Closed to Leasing[2] | 163,786 | 594,044 | 49,427 | 37,826 | 5,219 | 0 | **850,302** |

[1]All activities would be subject to intensive mitigation, including offsite placement of facilities; remote control monitoring; restricted or prohibited surface use, including road construction; multiple wells from a single pad; central tank batteries and facilities; pipelines and power lines concentrated in specific areas; etc., based on site-specific analysis. Moderate constraints include CSU stipulations. Major constraints include NSO stipulations.
[2]Although closed to leasing and related oil and gas activity, any other surface disturbing or disrupting use would follow the surface disturbance prescriptions.
[3]Acreage values do not include areas that have not been assessed.

Table 2-6 shows the number of acres of surface and subsurface acres (for coalbed natural gas exploration and development) that are subject to leasing restrictions. The acreage values provided in the table are organized by the type and level of restriction and mineral development potential.

**Table 2-6. Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential for Coalbed Natural Gas**

| Fluid Mineral Lease Conditional Requirement | Hydrocarbon Development Potential | | | | | |
|---|---|---|---|---|---|---|
| | None | Very Low | Low | Moderate | High | Total[3] |
| **ALTERNATIVE A (NO ACTION ALTERNATIVE)** | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 414,407 | 403,419 | 26,115 | 24,687 | 0 | **868,628** |
| Available for Leasing, Subject to Moderate Constraints[1] | 1,235,763 | 608,134 | 88,707 | 45,498 | 0 | **1,978,101** |
| Available for Leasing, Subject to Major Constraints[1] | 292,954 | 199,706 | 14,776 | 10,883 | 0 | **518,318** |
| Unavailable for Leasing[2] | 115,773 | 217,800 | 2,366 | 0 | 0 | **335,939** |
| **ALTERNATIVE B** | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 85,525 | 120,668 | 31,649 | 29,586 | 0 | **267,428** |
| Available for Leasing, Subject to Moderate Constraints[1] | 62,225 | 59,957 | 4,273 | 976 | 0 | **127,431** |
| Available for Leasing, Subject to Major Constraints[1] | 387,162 | 361,158 | 37,039 | 30,247 | 0 | **815,607** |
| Closed to Leasing[2] | 1,523,984 | 887,275 | 59,002 | 20,259 | 0 | **2,490,520** |
| **ALTERNATIVE C** | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 634,101 | 77,499 | 77,499 | 54,627 | 0 | **1,663,700** |
| Available for Leasing, Subject to Moderate Constraints[1] | 1,358,838 | 493,460 | 51,729 | 25,016 | 0 | **1,929,044** |
| Available for Leasing, Subject to Major Constraints[1] | 65,956 | 38,047 | 2,735 | 1,425 | 0 | **108,163** |
| Closed to Leasing[2] | 0 | 79 | 0 | 0 | 0 | **79** |
| **ALTERNATIVE D** | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 361,600 | 365,547 | 47,658 | 42,942 | 0 | **817,747** |
| Available for Leasing, Subject to Moderate Constraints[1] | 1,402,876 | 897,149 | 81,574 | 36,701 | 0 | **2,418,296** |
| Available for Leasing, Subject to Major Constraints[1] | 153,802 | 36,692 | 2,735 | 1,425 | 0 | **194,654** |
| Closed to Leasing[2] | 140,618 | 129,670 | 0 | 0 | 0 | **270,288** |

| Fluid Mineral Lease Conditional Requirement | Hydrocarbon Development Potential | | | | | |
|---|---|---|---|---|---|---|
| | None | Very Low | Low | Moderate | High | Total[3] |
| **PROPOSED RMP** | | | | | | |
| Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form | 573,586 | 456,426 | 58,904 | 51,587 | 0 | **1,140,502** |
| Available for Leasing, Subject to Moderate Constraints[1] | 718,546 | 506,971 | 66,493 | 29,115 | 0 | **1,321,124** |
| Available for Leasing, Subject to Major Constraints[1] | 95,006 | 118,149 | 1,916 | 366 | 0 | **215,437** |
| Unavailable for Leasing[2] | 531,811 | 313,841 | 4,650 | 0 | 0 | **850,302** |

[1]All activities would be subject to intensive mitigation, including offsite placement of facilities; remote control monitoring; restricted or prohibited surface use, including road construction; multiple wells from a single pad; central tank batteries and facilities; pipelines and power lines concentrated in specific areas; etc., based on site-specific analysis. Moderate constraints include CSU stipulations. Major constraints include NSO stipulations.
[2]Although closed to leasing and related oil and gas activity, any other surface disturbing or disrupting use would follow the surface disturbance prescriptions.
[3]Acreage values do not include areas that have not been assessed.

## Table 2-7. Areas Closed to Solid Leasable Minerals

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| **CLOSED TO COAL LEASING AND DEVELOPMENT** | | | | | |
| Aquifer recharge area for town of Superior | X | -- | -- | -- | -- |
| Aquifer recharge area for towns of Superior and McKinnon | -- | -- | -- | -- | -- |
| Areas outside the coal occurrence and development potential area but within the planning area | -- | X | -- | -- | -- |
| Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex | -- | X | -- | -- | -- |
| Big game crucial winter ranges, parturition areas, migration corridors and transitional habitats | -- | X | -- | -- | -- |
| Big Game Migration Corridor ACEC | -- | X | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Boars Tusk | -- | X | -- | -- | X |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | -- | X | -- | -- | -- |
| Cedar Canyon ACEC | -- | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed | -- | X | -- | -- | -- |
| City of Rock Springs Expansion Area | X | -- | -- | X | X |
| Crookston Ranch Site | X | -- | -- | X | X |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC (Currant Creek Watershed) | X | -- | -- | -- | -- |
| Greater Sand Dunes ACEC (western portion) | X | X | -- | X | -- |
| Known human burial sites | -- | X | -- | -- | -- |
| Lands with Wilderness Characteristics | -- | X | -- | -- | -- |
| Little Firehole's Cottonwood Canyon | -- | X | -- | X | -- |
| Little Mountain ACEC | -- | -- | -- | X | X |
| Monument Valley ACEC | -- | X | -- | -- | -- |
| North Fork Vermillion Creek Drainage (200-foot buffer of waterway) | X | X | X | X | X |
| Oregon Buttes ACEC | X | X | -- | X | X |
| Pine Springs ACEC | -- | X | -- | -- | X |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | -- | X | -- | -- | X |
| Raptor nest sites (in JMH area) with ¼-mile buffer | X | -- | -- | -- | -- |
| Shallow unconfined aquifers | -- | X | -- | -- | -- |
| Soils that have any of the following characteristics:<br>• Wind erodibility index greater than 100<br>• Saline<br>• Sodic<br>• Saline-sodic<br>• 2:1 clays<br>• Sand dunes<br>• Slopes greater than 25%<br>• Slumps and creeps and/or rutting<br>• Areas that are difficult to reclaim | -- | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Special Status Plants ACEC | -- | -- | -- | X | X |
| South Pass Historic Landscape ACEC | X | X | -- | -- | -- |
| South Wind River ACEC | -- | X | -- | -- | X |
| Sweetwater County Growth Management Area | -- | X | -- | X | X |
| Tri-Territory Marker | X | X | X | X | X |
| Wild and Scenic River segments (½-mile buffer) | X | X | -- | X | -- |
| Wind River Front SRMA | -- | -- | -- | X | X |
| Within ¼ mile of 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages | X | -- | -- | X | -- |
| Within 1 mile of raptor active and historic nest sites | -- | X | -- | -- | -- |
| Within 3 miles of developed recreation sites | -- | X | -- | -- | -- |
| WSAs | X | X | X | X | X |
| **Total Acres** | **485,964** | **3,735,546** | **226,219** | **610,342** | **1,167,330** |
| **CLOSED TO OIL SHALE LEASING AND DEVELOPMENT** | | | | | |
| Aquifer recharge area for towns of Superior and McKinnon | -- | -- | -- | X | -- |
| Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex | -- | X | -- | -- | -- |
| Big game crucial winter ranges, parturition areas, migration corridors and transitional habitats | -- | X | -- | -- | -- |
| Big Game Migration Corridor ACEC | -- | X | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Boars Tusk in Greater Sand Dunes ACEC | -- | X | -- | -- | X |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | -- | X | -- | -- | -- |
| Cedar Canyon ACEC | -- | X | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, three-mile viewshed | -- | X | -- | -- | -- |
| Crookston Ranch Site | -- | -- | -- | X | X |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Expansion Areas for Rock Springs and Green River Cities | X | -- | -- | X | X |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| JMH Area 3 | X | X | -- | -- | X |
| Killpecker Sand Dunes SRMA | -- | -- | -- | X | X |
| Known human burial sites | -- | X | -- | -- | -- |
| Lands with Wilderness Characteristics | -- | X | -- | -- | -- |
| Little Firehole's Cottonwood Canyon | -- | X | -- | X | -- |
| Little Mountain ACEC | -- | -- | -- | X | X |
| Mechanically Mineable Trona Area | X | X | -- | X | X |
| Monument Valley Management Area | X | X | -- | -- | -- |
| National Historic Trails | X | X | -- | X | -- |
| Oregon Buttes ACEC | -- | X | -- | -- | X |
| Pine Springs ACEC | -- | X | -- | -- | X |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | -- | X | -- | -- | -- |
| Red Desert Management Area | -- | -- | -- | X | -- |
| Shallow unconfined aquifers | -- | X | -- | -- | -- |
| Soils that have any of the following characteristics:<br>• Wind erodibility index greater than 100<br>• Saline<br>• Sodic<br>• Saline-sodic<br>• 2:1 clays<br>• Sand dunes<br>• Slopes greater than 25%,<br>• Slumps and creeps and/or rutting<br>• Areas that are difficult to reclaim | -- | X | -- | -- | -- |
| Special Status Plants ACEC | X | X | -- | X | X |
| South Pass Historic Landscape ACEC | -- | X | -- | X | X |
| South Wind River ACEC | -- | X | -- | -- | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Steamboat ACEC | -- | -- | -- | X | -- |
| Sweetwater County Growth Management Area | -- | X | -- | X | X |
| Tri-Territory Marker | X | X | X | X | X |
| Within ¼ mile of 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages | -- | X | -- | -- | -- |
| Within ¼ mile of historic trails | X | X | -- | -- | X |
| Within ¼ mile of Wild and Scenic River segments | X | X | -- | X | X |
| Within 3 miles of developed recreation sites | -- | X | -- | -- | -- |
| WSAs | X | X | X | X | X |
| **Total Acres** | **727,805** | **2,122,282** | **225,965** | **1,557,520** | **1,115,490** |
| **CLOSED TO TRONA LEASING AND DEVELOPMENT** | | | | | |
| Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex | -- | X | -- | -- | -- |
| Big game crucial winter ranges, parturition areas, migration corridors and transitional habitats | -- | X | -- | -- | -- |
| Big Game Migration Corridor ACEC | -- | X | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Boars Tusk | -- | X | -- | -- | X |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | -- | X | -- | -- | -- |
| Cedar Canyon ACEC | -- | X | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, three-mile viewshed | -- | X | -- | -- | -- |
| City of Rock Springs Expansion Area | X | -- | -- | -- | -- |
| Crookston Ranch Site | X | -- | -- | X | X |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC (Currant Creek Watershed) | X | -- | -- | -- | -- |
| Greater Sand Dunes ACEC (western portion) | X | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Important rock art sites, other important cultural resource values, and important geologic and ecologic features and ½-mile buffer | -- | X | -- | -- | -- |
| Known human burial sites | -- | X | -- | -- | -- |
| Lands with Wilderness Characteristics | -- | X | -- | -- | -- |
| Little Firehole's Cottonwood Canyon | -- | X | -- | X | -- |
| Monument Valley ACEC | -- | X | -- | -- | -- |
| Oregon Buttes ACEC | X | X | -- | -- | X |
| Pine Springs ACEC | -- | X | -- | -- | X |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | -- | X | -- | -- | -- |
| Prospecting Permits within the Known Sodium Leasing Area | X | -- | -- | -- | -- |
| Raptor nest sites (in JMH area) | X | -- | -- | -- | -- |
| Shallow unconfined aquifers | -- | X | -- | -- | -- |
| Soils that have any of the following characteristics:<br>• Wind erodibility index greater than 100<br>• Saline<br>• Sodic<br>• Saline-sodic<br>• 2:1 clays<br>• Sand dunes<br>• Slopes greater than 25%<br>• Slumps and creeps and/or rutting<br>• Areas that are difficult to reclaim | -- | X | -- | -- | -- |
| South Pass Historic Landscape ACEC | X | X | -- | -- | -- |
| South Wind River ACEC | -- | X | -- | -- | X |
| Special Status Plants ACEC | X | -- | -- | X | X |
| Sweetwater County Growth Management Area | -- | X | -- | X | X |
| Tri-Territory Marker | X | X | X | X | X |
| Wild and Scenic River segments (½-mile buffer) | X | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Within ¼ mile of 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages | X | -- | -- | -- | -- |
| Within ¼ mile of significant rock art sites | X | -- | -- | -- | -- |
| Within 1 mile of raptor active and historic nest sites | -- | X | -- | -- | -- |
| Within 3 miles of developed recreation sites | -- | X | -- | -- | -- |
| WSAs | X | X | X | X | X |
| **Total Acres** | **423,633** | **2,119,920** | **225,965** | **389,552** | **569,554** |

## Table 2-8. Areas Closed to Mineral Material Sales/Disposals

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| **CLOSED TO MINERAL MATERIAL SALES/DISPOSALS** | | | | | |
| 14-Mile Recreation Area | X | -- | -- | -- | -- |
| Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex | X | X | -- | -- | -- |
| Big game crucial winter range, parturition areas, and migration corridors (within ½ mile) | -- | X | -- | -- | -- |
| Big Game Migration Corridor ACEC | -- | X | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Big Sandy River and ½-mile buffer (1.5 miles) | X | -- | -- | -- | -- |
| Boars Tusk + 1,400 acres of BLM-administered lands surrounding the area | X | -- | -- | -- | -- |
| Boars Tusk | -- | X | -- | -- | X |
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | X | X | -- | -- | -- |
| Cedar Canyon Petroglyph rock art site and the surrounding viewshed (within 3 miles) | X | X | -- | -- | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites | -- | -- | -- | X | X |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites and ½-mile viewshed | X | -- | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed | -- | X | -- | -- | -- |
| Crookston Ranch | X | X | -- | X | X |
| Developed recreation sites (within ¼ mile) | X | -- | -- | -- | -- |
| Developed recreation sites, three-mile buffer or visual horizon | -- | X | -- | -- | -- |
| Dry Sandy Swales | X | X | X | -- | X |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |
| Emmons Cone | | | X | X | |
| Four J Basin | -- | X | -- | -- | -- |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Currant Creek Watershed | X | -- | -- | -- | -- |
| Greater Red Creek ACEC, Red Creek Portion | X | -- | -- | -- | -- |
| Greater Red Creek ACEC, Salt Wells Portion | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Sugarloaf Basin Portion | -- | X | -- | -- | -- |
| Greater Sand Dunes ACEC | X | X | -- | -- | X |
| Human Burial Sites | X | X | X | X | X |
| Killpecker Sand Dunes SRMA | -- | -- | -- | X | X |
| Lands with Wilderness Characteristics: Dry Hollow Creek, Teepee Mountain, Potter Mountain, Laney Rim, Hay Ditch, North Pacific Creek, Mowing Machine Draw, Bush Creek, Bear Creek Trail | -- | X | -- | -- | -- |
| Little Firehole's Cottonwood Canyon | -- | X | -- | X | -- |
| Little Mountain ACEC | -- | -- | -- | X | X |
| Monument Valley ACEC | -- | X | -- | -- | -- |
| National Historic Trails (within 5 miles) | -- | X | -- | -- | -- |
| Natural Corrals | -- | -- | -- | X | -- |
| Natural Corrals ACEC | X | X | -- | -- | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| North and South Table Mountains | X | -- | -- | -- | -- |
| Occupied Raptor Nests | X | -- | -- | -- | -- |
| Oregon and Mormon Pioneer National Historic Trails SRMA | -- | -- | X | -- | -- |
| Oregon Buttes ACEC | X | X | -- | -- | X |
| Other Historic Roads and Trails (Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails) within 2 miles of intact segments, and within 2 to 5 miles for highly visible projects | -- | X | -- | -- | -- |
| Parting-of-the-Ways Historical Site | X | -- | -- | -- | -- |
| Pilot Butte | -- | -- | X | X | -- |
| Pine Butte | X | -- | -- | -- | -- |
| Pine Springs | -- | -- | -- | X | X |
| Pine Springs ACEC | X | X | -- | -- | X |
| Pinnacles ACEC | -- | X | -- | -- | X |
| Pinnacles Geologic Feature | -- | -- | -- | X | X |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | X | X | -- | X | X |
| Riparian: 100-year floodplains, wetlands, riparian areas or perennial streams, and within 500 feet of the edge of the inner gorge of large ephemeral drainages | X | X | -- | -- | -- |
| Sand Dunes ACEC | X | -- | -- | -- | -- |
| Shallow, unconfined aquifers | -- | X | -- | -- | -- |
| Soils—highly erodible, saline, sodic, saline-sodic, 2:1 clays, and in sand dunes, slopes greater than 25%, soil slumps and creeps, soils sensitive to compaction and/or rutting, and areas that are difficult to reclaim | -- | X | -- | -- | -- |
| South Pass Historic Landscape ACEC | -- | X | -- | -- | -- |
| South Pass Historic Landscape ACEC (visible portion) – JMH | X | -- | -- | -- | -- |
| South Pass Summit – JMH | X | -- | -- | -- | -- |
| South Wind River ACEC | -- | X | -- | -- | X |
| Special Status Plant Species ACEC | X | X | -- | X | X |
| Steamboat Mountain ACEC | X | X | -- | -- | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Tri-Territory Marker | X | X | X | X | X |
| White Mountain Petroglyphs ACEC | X | X | -- | -- | X |
| Wild Horse Viewing Area | X | X | -- | -- | X |
| Within ½ mile of Wild and Scenic Rivers | X | X | -- | X | X |
| Within 100 feet of known locations of Special Status plant species | -- | -- | -- | X | X |
| WSAs | X | X | X | X | X |
| **Total Acres** | **833,719** | **2,581,741** | **226,421** | **362,009** | **884,906** |

## Table 2-9. Visual Resource Management Classifications (acres)

| VRM Classification | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Class I | 225,717 | 225,785 | 226,629 | 225,703 | 225,736 |
| Class II | 582,672 | 2,148,902 | 607,899 | 1,178,718 | 1,301,004 |
| Class III | 615,492 | 666,522 | 395,683 | 738,311 | 149,413 |
| Class IV | 2,180,423 | 563,754 | 2,374,706 | 1,455,234 | 1,929,258 |

## Table 2-10. Rights-of-Way Limitations

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| **EXCLUSION AREAS** | | | | | |
| Big Game Migration Corridor ACEC | -- | X | -- | -- | -- |
| Big Sandy river (½-mile wide corridor, 1.5 mile long) | X | -- | -- | -- | -- |
| Big Sandy Openings ACEC | -- | X | -- | -- | X |
| Boars Tusk | -- | X | -- | -- | X |
| Boars Tusk (90 acres) | -- | -- | -- | X | -- |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail | -- | X | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites and ½-mile viewshed | X | -- | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain, and other significant rock art sites | -- | -- | -- | X | X |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed | -- | X | -- | -- | -- |
| Crookston Ranch | -- | -- | -- | X | X |
| Crookston Ranch ACEC | -- | X | -- | -- | X |
| Dry Sandy Swales | X | X | X | -- | X |
| East Sand Dunes – Red Lake ACEC | -- | X | -- | -- | -- |
| Greater Red Creek ACEC | -- | X | -- | -- | -- |
| Grater Red Creek ACEC – Currant Creek Watershed Portion | X | X | -- | -- | -- |
| Grater Red Creek ACEC – Red Creek Portion | -- | X | -- | -- | -- |
| Greater Red Creek ACEC – Red Creek Portion from the Red Creek escarpment south to Richards Gap (10-year timeframe) | X | -- | -- | -- | -- |
| Greater Red Creek ACEC, Salt Wells Portion and Four J Basin (formerly Pine Mountain Management Area) | -- | X | -- | -- | -- |
| Greater Red Creek ACEC, Sugarloaf Basin Portion (formerly Sugarloaf Basin Management Area) | -- | X | -- | -- | -- |
| Greater Sand Dunes ACEC (eastern portion) | -- | X | -- | -- | -- |
| Indian Gap – JMH | X | -- | -- | -- | -- |
| Known human burial sites | -- | X | X | X | X |
| Lands with Wilderness Characteristics: Dry Hollow Creek, Teepee Mountain, Potter Mountain, Laney Rim, Hay Ditch, North Pacific Creek, Mowing Machine Draw, Bush Creek, Bear Creek Trail | -- | X | -- | -- | -- |
| Little Firehole's Cottonwood Canyon area | -- | X | -- | -- | -- |
| Native American Burial Sites | X | X | X | X | X |
| Natural Corrals | -- | -- | -- | X | X |
| Natural Corrals ACEC | X | X | -- | -- | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Oregon Buttes ACEC – JMH | X | -- | -- | -- | -- |
| Oregon Buttes ACEC | -- | X | -- | -- | X |
| Other Historic Roads and Trails (Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails) within 2 miles of intact segments | -- | X | -- | -- | -- |
| Pine Butte | X | -- | -- | -- | -- |
| Pinnacles Geologic Feature (JMH) | X | -- | -- | -- | -- |
| Pinnacles ACEC | -- | X | -- | -- | X |
| Pinnacles Geologic Feature | -- | -- | -- | X | -- |
| Pine Springs ACEC | -- | X | -- | -- | X |
| Prehistoric Quarry Sites (48SU1263 and 48SU7632) | X | X | -- | -- | -- |
| Red Desert Watershed Management Area (windows eliminated, overhead powerlines prohibited) | -- | X | -- | -- | -- |
| South Pass Historic Landscape ACEC (visible portion) | X | -- | -- | -- | -- |
| South Pass Historic Landscape ACEC | -- | X | -- | X | X |
| South Wind River ACEC | -- | X | -- | -- | X |
| Special Status plant species' known or potential habitat | -- | X | -- | -- | X |
| Special Status Plant ACEC | X | X | -- | X | X |
| Steamboat Mountain ACEC | -- | X | -- | -- | X |
| Sweetwater River Wild, Scenic and Recreational Segments (½-mile corridor, 9.7 miles long) | X | -- | -- | X | X |
| Tri-Territory Marker | X | X | X | X | X |
| White Mountain Petroglyphs ACEC | X | X | -- | -- | X |
| Wild and Scenic Rivers | X | X | -- | X | X |
| WSAs | X | X | X | X | X |
| **Total Acres** | **426,709** | **2,480,876** | **225,784** | **286,289** | **921,059** |
| **AVOIDANCE AREAS** | | | | | |
| 14-Mile Recreation Area | X | -- | -- | -- | -- |
| Aquifer recharge area for towns of Superior and McKinnon | -- | -- | -- | X | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Boars Tusk | X | -- | -- | -- | -- |
| Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain, and other significant rock art sites, setting only | -- | -- | -- | X | X |
| Connectivity area – JMH | X | -- | -- | -- | -- |
| Crookston Ranch | X | -- | -- | -- | -- |
| Dry Sandy Swales (¼-mile buffer) | X | -- | -- | -- | -- |
| Emmons Cone | X | -- | -- | -- | X |
| Expansion era roads + ¼-mile buffer – JMH | X | -- | -- | -- | -- |
| Farson Fossil Fish Beds | -- | -- | -- | X | X |
| Greater Red Creek ACEC (area outside of individual watersheds) | X | -- | -- | -- | -- |
| Greater Sand Dunes ACEC (and lands within 1 mile or visual horizon) | X | X | -- | X | X |
| Greater Sand Dunes ACEC (eastern portion) | X | -- | -- | -- | - |
| Historic trails (¼-mile buffer) | X | -- | -- | -- | -- |
| I-80 Point of Rock to Green River (for major utility lines) | X | X | -- | X | -- |
| Killpecker Sand Dunes SRMA | -- | -- | X | X | X |
| Little Firehole's Cottonwood Canyon area | -- | -- | -- | X | -- |
| Little Mountain ACEC | -- | -- | -- | X | X |
| Monument Valley (erosive soil areas and slopes >25%) | X | -- | -- | -- | -- |
| Monument Valley (erosive soil areas and slopes >20%) | -- | X | -- | -- | -- |
| National historic trails + ¼-mile buffer – JMH | X | -- | -- | -- | -- |
| National historic trails within 5 to 15 miles | -- | X | -- | -- | -- |
| National Trail Management Corridor (5 miles) | -- | -- | -- | X | X |
| North and South Table Mountains | X | -- | -- | -- | -- |
| Oregon and Mormon Pioneer National Historic Trails SRMA | -- | -- | X | -- | -- |
| Other Historic Roads and Trails (Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails) within 2 to 5 miles of intact segments | -- | X | -- | -- | -- |
| Pilot Butte | X | -- | -- | -- | X |
| Pine Mountain Management Area | X | -- | -- | X | X |

| Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Pine Springs | -- | -- | -- | X | X |
| Pine Springs ACEC | X | -- | -- | -- | -- |
| Red Desert Management Area | -- | -- | -- | X | -- |
| Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain | -- | -- | -- | X | -- |
| South Pass Historic Landscape ACEC (non- visible portion) | X | -- | -- | -- | -- |
| Special Status Plants (known sites) | X | -- | X | -- | -- |
| Steamboat Mountain ACEC | X | -- | -- | X | -- |
| Sugarloaf Basin | X | -- | -- | -- | -- |
| Sugarloaf Basin Management Area | X | -- | -- | X | X |
| West Sand Dunes Archaeological District | X | X | -- | -- | -- |
| Wind River Front SRMA (Eastern Unit) | -- | -- | -- | X | X |
| Within ¼ mile of the Overland and Cherokee Trails | -- | -- | -- | X | -- |
| Within ½ mile of Horse Herd Viewing Areas | X | X | -- | X | X |
| Within 100 feet of known locations of special status plant species | -- | -- | -- | X | X |
| Within 100-year floodplains; ¼ mile of wetlands, riparian areas, and perennial streams; 500 feet of the outer edge of wetland/riparian areas or perennial streams; and 100 feet of the edge of the inner gorge of intermittent channels or ephemeral drainages. | -- | -- | -- | X | X |
| Within 500 feet of eligible Historic Roads and Trails | -- | -- | -- | X | X |
| **Total Acres** | **736,138** | **133,903** | **31,018** | **1,388,618** | **1,047,929** |

## Table 2-11. Off-Highway Vehicle Area Designations (acres)

| OHV Designation | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Open | 12,831 | 12,831 | 13,332 | 12,831 | 12,831 |
| Closed | 225,537 | 225,537 | 225,537 | 225,537 | 225,890 |
| Limited to Designated Roads and Trails | 968,959 | 3,367,576 | 3,365,374 | 3,367,576 | 3,367,223 |

| OHV Designation | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Limited to Existing Roads and Trails | 2,398,839 | 0 | 0 | 0 | 0 |

## Table 2-12. Special Designations and Management Areas

| Special Designation Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| **AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) (ACRES)** | | | | | |
| Big Game Migration Corridor ACEC | 0 | 226,335 | 0 | 0 | 0 |
| Big Sandy Openings ACEC | 0 | 2,020 | 0 | 0 | 1,994 |
| Cedar Canyon ACEC | 2,540 | 2,540 | 0 | 0 | 0 |
| East Sand Dunes – Red Lake ACEC | 0 | 22,340 | 0 | 0 | 0 |
| Greater Red Creek ACEC | 131,600 | 468,170 | 0 | 0 | 0 |
| Greater Sand Dunes ACEC | 39,290 | 39,290 | 0 | 26,364 | 26,746 |
| Little Mountain ACEC | 0 | 0 | 0 | 108,010 | 115,573 |
| Monument Valley ACEC | 0 | 69,960 | 0 | 0 | 0 |
| Natural Corrals ACEC | 1,110 | 1,110 | 0 | 0 | 1,107 |
| Oregon Buttes ACEC | 3,440 | 3,440 | 0 | 3,440 | 3,441 |
| Pine Springs ACEC | 6,030 | 6,480 | 0 | 6,480 | 6,483 |
| Pinnacles ACEC | 0 | 1,340 | 0 | 0 | 1,344 |
| South Pass Historic Landscape ACEC | 53,940 | 171,300 | 0 | 53,940 | 53,772 |
| South Wind River ACEC | 0 | 374,710 | 0 | 0 | 281,104 |
| Special Status Plant Species ACEC | 1,200 | 3,610 | 0 | 1,120 | 4,469 |
| Steamboat Mountain ACEC | 47,280 | 439,330 | 0 | 47,280 | 439,081 |
| White Mountain Petroglyphs ACEC | 20 | 20 | 0 | 0 | 22 |
| **Total Acres** | **286,450** | **1,605,660** | **0** | **246,634** | **935,135** |
| **MANAGEMENT AREAS AND OTHER FEATURES (ACRES)** | | | | | |
| Monument Valley Management Area | 69,960 | 0 | 0 | 0 | 0 |
| Pine Mountain Management Area | 62,760 | 0 | 0 | 62,760 | 62,675 |

| Special Designation Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Pinnacles Geographic Area | 1,340 | 0 | 0 | 0 | 0 |
| Red Desert Management Area | 0 | 0 | 0 | 162,980 | 0 |
| Red Desert Watershed Management Area | 340,930 | 0 | 0 | 0 | 0 |
| Red Desert Watershed Management Area | 0 | 164,140 | 0 | 0 | 0 |
| Sugarloaf Basin Management Area | 87,240 | 0 | 0 | 87,240 | 87,149 |
| West Sand Dunes Archaeological District | 17,780 | 17,780 | 0 | 0 | 0 |
| **Total Acres** | **580,010** | **183,938** | **0** | **312,980** | **149,824** |
| **SPECIAL RECREATION MANAGEMENT AREAS (SRMA) (ACRES)** | | | | | |
| Continental Divide National Scenic Trail SRMA | 60 | 0 | 60 | 60 | 56 |
| Continental Divide Snowmobile Trail SRMA | 90 | 0 | 90 | 0 | 87 |
| Green River SRMA | 700 | 0 | 700 | 0 | 0 |
| Killpecker Sand Dunes SRMA | 39,290 | 0 | 39,290 | 12,832 | 12,802 |
| Little Mountain SRMA | 0 | 0 | 40,550 | 40,550 | 40,455 |
| Oregon and Mormon Pioneer National Historic Trails SRMA | 290 | 0 | 290 | 0 | 0 |
| Red Creek Badlands SRMA | 0 | 0 | 261,140 | 0 | 0 |
| Wind River Front SRMA | 257,680 | 0 | 257,680 | 82,107 | 85,335 |
| **Total Acres** | **298,110** | **0** | **599,800** | **135,549** | **138,605** |
| **WILD AND SCENIC RIVERS (MILES)** | | | | | |
| Recreation Designation | 3.4 | 3.4 | 0 | 3.4 | 3.4 |
| Scenic Designation | 0.5 | 0.5 | 0 | 0.5 | 0.5 |
| Sweetwater Wild and Scenic River | 9.7 | 9.7 | 0 | 9.7 | 9.7 |
| Wild Designation | 5.8 | 5.8 | 0 | 5.8 | 5.8 |
| **WILDERNESS STUDY AREAS (WSA) (ACRES)** | | | | | |
| Adobe Town WSA | 52,860 | 52,860 | 52,860 | 52,860 | 52,860 |
| Alkali Draw WSA | 17,910 | 17,910 | 17,910 | 17,910 | 17,910 |
| Buffalo Hump WSA | 9,480 | 9,480 | 9,480 | 9,480 | 9,480 |
| Devil's Playground WSA | 16,050 | 16,050 | 16,050 | 16,050 | 16,050 |
| East Sand Dunes WSA | 12,800 | 12,800 | 12,800 | 12,800 | 12,800 |

| Special Designation Area | Alternative A (No Action Alternative) | Alternative B | Alternative C | Alternative D | Proposed RMP |
|---|---|---|---|---|---|
| Honeycomb Buttes WSA | 42,310 | 42,310 | 42,310 | 42,310 | 42,310 |
| Oregon Buttes WSA | 5,860 | 5,860 | 5,860 | 5,860 | 5,860 |
| Red Creek Badlands WSA | 8,690 | 8,690 | 8,690 | 8,690 | 8,690 |
| Red Lake WSA | 9,550 | 9,550 | 9,550 | 9,550 | 9,550 |
| Sand Dunes WSA | 28,330 | 28,330 | 28,330 | 28,330 | 28,330 |
| South Pinnacles WSA | 10,910 | 10,910 | 10,910 | 10,910 | 10,910 |
| Twin Buttes WSA | 8,170 | 8,170 | 8,170 | 8,170 | 8,170 |
| Whitehorse Creek WSA | 5,040 | 5,040 | 5,040 | 5,040 | 5,040 |
| **Total Acres** | **227,960** | **227,960** | **227,960** | **227,960** | **227,960** |

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# APPENDIX W—RESPONSES TO COMMENTS ON THE DRAFT EIS

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| Comment Category | Comment ID # | Comment Text | BLM Response |
|---|---|---|---|
| 801 - Physical Resources-Air Quality (1000-1017) | #254-1 | To state that like trucks could present more environmental damage then wild fires is ludicous and not backed by date. Plan B is unacceptable due to it faulty science, disregard of local public sentiment and needs, and its blatant extremism. | The BLM is unable to clarify or provide comment for this statement without specific reference. Air Quality impacts can be found in Chapter 4.3 and Wildland Fire impacts are disclosed in Chapter 4.10. |
| 801 - Physical Resources-Air Quality (1000-1017) | #258-1 | PHYSICAL RESOURCE AIR QUALITY(1000-1017). All cases for Oil and Gas will be on a case by case decision basis. This will effectively halt any type of drilling project much like what is happening right now. | The case-by-case refers to the level of NEPA analysis required for oil and gas activities, which is current practice. |
| 801 - Physical Resources-Air Quality (1000-1017) | #258-3 | It is painfully obvious to see that the whole Alt B is slanted toward reducing CO2 emissions, but I challenge the accuracy of the chart that show Co2 emissions in Alt A as 3,499,257 compared to Alt B going down to 927,665. Clearly this is the golden calf that this administration is worshipping. I find this calculation to be totally out of reason and challenge some one to show their work on how these numbers arrived. | The emissions estimates for each alternative were calculated based on a number of assumptions and activity levels for multiple resources (See Appendix P). Detailed emission data are included in the Appendix. |
| 801 - Physical Resources-Air Quality (1000-1017) | #546-1 | Climate change and the loss of biodiversity are two huge, overlapping, and increasingly serious problems. I strongly urge BLM to make helping to solve these problems a top priority of this RMP revision. BLM has a timely opportunity with this RMP revision to provide positive leadership. The attached IPPC report describes why BLM should immediately stop approving any further fossil fuel leasing or other development. The attached scientific study describes how livestock grazing on public lands contributes to climate change along with the degradation of habitats for biodiversity. I hope that BLM will use this important information to make the best decisions for the future management of these valuable BLM lands and resources. | Impacts for all proposed alternatives can be found in Chapter 4, with cumulative impacts disclosed in Appendix T. |
| 801 - Physical Resources-Air Quality (1000-1017) | #8761-17 | The agency should adequately consider how changes in the output of the sun including the current hyperactive solar cycle and the earth's change magnetic field produce a significant amount of climate change that is not CO2 based. https://www.cnbc.com/2022/02/09/why-solar-geomagnetic-storms-destroy-satellites-like-spacex-starlink.html | Analysis regarding global output of the sun and the earth's magnetic field are outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air Quality (1000-1017) | #8761-20 | Paleo trends must be adequately considered such as found in the paper 1200 years of Upper Missouri River streamflow reconstructed from tree rings at https://www.sciencedirect.com/science/article/pii/S0277379119306985 | Paleontology impacts can be found in Chapter 4.13. |
| 801 - Physical Resources-Air Quality (1000-1017) | #9721-5 | Restricting the development of minerals within the project area will not reduce global demand for these products nor will it reduce global cumulative effects. It is likely that cumulative VOC's, HAP's and GHG's will be reduced locally. However, the cumulative global effects will be greater as the mineral resources will need to be extracted elsewhere. In that case the cumulative analysis must consider the worst case scenario regarding VOC's, HAP's, GHG's and others for foreign suppliers extracting and shipping those resources to meet the domestic demand. | A global scale cumulative analysis relating to foreign sources of emissions is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air Quality (1000-1017) | #9721-13 | If the RMP removes the ability to explore and produce minerals from the project area those resources will be acquired elsewhere. Therefore, your SC-GHG analysis specific to Alternative Bis inaccurately lower than actual due to sourcing minerals elsewhere on the global market. You must consider the SC- GHG from the global supplier with the greatest potential SC-GHG to account for resources removed from the market and acquired elsewhere due to closures this plan proposes. It is likely that Alternative B will have the least direct GHG emissions, but due to the global market and sourcing the materials elsewhere Alternative B may ultimately be the greatest contributor to indirect GHG emissions. | A global scale cumulative analysis relating to foreign sources of emissions is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air Quality (1000-1017) | #9774-4 | As determined through scientific studies, grazing on public lands has a significant effect on climate change. The greenhouse gas (GHG) emissions from cattle on public land equaled 12.4 million tons CO2/year. To further break down this statistic, examining the social cost of carbon (SCC) proves essential. SCC "is the cost of the damages created by one extra ton of carbon dioxide emissions." The Interagency Working Group (IWG) most recent figures from February 2021 estimate that the SCC is $51 per metric ton. The RMP/DEIS uses IWG figures. However, the EPA conducted a separate analysis from IWG where they project the SCC to be more than double IWG's projection. The BLM should use the EPA's estimates since they are most recent, and the IWG report was only meant to be a preliminary baseline. Additionally, the BLM, as a government agency, should utilize the EPA's guidelines since the EPA oversees the entire NEPA process. The IWG's SCC estimates are too conservative to fight the climate crisis adequately. 25 climate disasters in the United States exceeded $1 billion in damages in 2023 alone. The frequency of these incidents will increase as climate change worsens. | As this comment notes, there have been a variety of developments in the scientific literature since the IWG estimates were published, which the BLM considered for this planning effort and associated analysis. The IWG's estimates reflect the best available evidence given the particular analytical context of this planning effort and best facilitates sound decision-making for this planning process. |
| 801 - Physical Resources-Air Quality (1000-1017) | #9774-5 | We urge the BLM to continue with this alternative and to consider being stricter in their use of grazing to reduce GHG emissions further. To reduce GHG emissions, we recommend that the BLM limit AUMs. GHG emissions "from enteric fermentation and manure deposition on public lands were…2.1 million t CO2e for Wyoming." The SCC for this statistic using the more conservative IWG figures versus the EPA's less conservative figures would be 107.1 million and 252 million dollars, respectively. According to the US Geological Survey (USGS) and US Department of the Interior (DOI), "[Methane] (CH4), are…highest for Federal lands in Wyoming [at] 28 percent." | See Appendix P for the Technical Air Quality Report, which covers livestock grazing. |

| Comment Category | Comment ID # | Comment Text | BLM Response |
|---|---|---|---|
| 801 - Physical Resources-Air Quality (1000-1017) | #9853-1 | While SVP supports the requirements to maintain healthy air resources, issues concerning air resources are largely irrelevant from the paleontological standpoint, except where surface disturbances, that may impact paleontological resources at or near ground surfaces (if any) are involved. Therefore, SVP prefers Alterative A for MA# 1010 (Page 2-7) in light of the fact that how ground disturbances will be handled is not clear in Alternative B. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | See Glossary for a definition of surface disturbance and surface disturbing activities. |
| 801 - Physical Resources-Air Quality (1000-1017) | #10324-11 | For both temperature and precipitation, the state ranked above average in temperatures and below average in precipitation between 1895 and the end of 2022.24 With this being said, there needs to be more of an emphasis on how Rock Springs will deal with the incoming threats of climate change, especially in order for this plan to be useful in the near future. Climate change has the potential to impact every single affected environment listed on the RMP, and therefore should be mentioned in every single affected environment section as to how each alternative would handle how climate change could affect these environments. There is quite a bit of climate change research going on, and a lot of information on how it will affect a variety of resources across the world, so I think it is important for the planning committee to take a look at how they will respond when the effects become apparent in their community. I would highly suggest looking at climate change more throughout the RMP, just to have a more concrete plan in place. Even though there are changes happening now, we as a state and the area of Rock Springs need to be prepared as to how they would handle new animals moving to the area to escape the warming, how water levels may change with decreased precipitation and how that could affect water to the community, ect. If this is not considered in the RMP more than it currently is, it is setting the area up for failure when the impacts become more severe. | See Section 1.4 for the Planning Criteria for the RMP. Impacted resources have appropriate stipulations, restrictions, and requirements to be protective of the resource. |
| 801 - Physical Resources-Air Quality (1000-1017) | #10517-2 | We are also concerned with the estimation of trona mining emissions in Appendix P.6.3. We would encourage the Bureau to include in its assumptions the likelihood that a change in resources for electricity generation for trona mines (for example, the adoption of nuclear reactors on-site). We also are concerned with the inclusion of commuting employees in the calculation of emissions related to trona production. Currently, most commuting is by multiple passenger buses; private single occupancy vehicles are not prevalent or really used for commuting. If Alternative B is adopted and trona production is curtailed to where the number of employees doesn't increase or actually decreases, then those employees would have to commute individually elsewhere for work (and likely farther than they otherwise would). Trying to speculate 1 43 U.S.C. § 1732(a). 2 43 U.S.C. § 1712(c)(i). 3 Plan, Volume 1, 2-25. 4 Plan, Volume 1, 3.15.4 (3-19). | New trona mining projects would be evaluated utilizing project-specific information at the time the NEPA analysis is conducted. For the purposes of the EIS analysis, generalized assumptions are made regarding oil and gas and mining development. See Appendix P. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-24 | 1010 Alternative A Surface disturbing activities will be managed to prevent violation of air quality regulations. It is unclear under Alterative B whether the "implementation of mitigation measures within BLM's authority to reduce air quality impacts" would be done in coordination with WDEQ. Alterative A is preferred because it is a continuation of existing practices which includes coordination with the WDEQ - ensuring preservation of state primacy over air quality. | See Glossary for a definition of surface disturbance and surface disturbing activities. Additionally, see Section 1.4 for Planning Criteria and Appendix E for applicable laws, regulations and policies that apply to this RMP. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-25 | 1012 Alternative B with amended/ additional text Conduct conformity analyses and determinations for BLM actions in accordance with the Clean Air Act for all proposed projects located within designated non-attainment areas. The task force would like to add language to Alternative B to clarify state primacy over air quality. Revised management action with additional language in red: BLM shall work cooperatively with WY Department of Environmental Quality Air Quality Division to conduct conformity analysis and determinations for BLM action in accordance with the Clean Air Act for all proposed projects located within designated non-attainment areas. | General Conformity applies only to Federal actions in nonattainment areas and is a requirement for Federal agencies only. See also Appendix E for a list of law, regulations, and policies that govern this RMP. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-26 | 1013 Alternative B with amended/ additional text Determine, on a case-by-case basis and in accordance with the Rock Springs Air Resources Management Plan, the level of air analysis, including air quality modeling, necessary to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies for all project level EISs and Environmental Assessments. The task force would like to add language to Alternative B to clarify state primacy. Revised management action with additional language in red: BLM shall work cooperatively with WY Department of Environmental Quality Air Quality Division to determine, on a case-by-case basis and in accordance with the Rock Springs Air Resources Management Plan, the level of air analysis, including air quality modeling, necessary to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies for all project level EISs and Environmental Assessments. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-27 | 1014 Alternative B with amended/ additional text Determine, on a case-by-case basis, the need for quantitative air quality analyses (including modeling) to assess the potential air quality impacts and/or the effectiveness of mitigation strategies of proposed actions. Make determination in consultation with state, local, federal, and tribal agencies. The task force would like to add language to Alternative B to clarify state primacy over air quality. Revised management action with additional language in red: BLM shall work cooperatively with WY Department of Environmental Quality Air Quality Division to determine, on a case-by-case basis, the need for quantitative air quality analyses (including modeling) to assess the potential air quality impacts and/or the effectiveness of mitigation strategies of proposed actions. Make determination in consultation with state, local, federal, and tribal agencies. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |

| Comment Category | Comment ID # | Comment Text | BLM Response |
|---|---|---|---|
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-28 | 1015 Alternative B with amended/ additional text Support a quantitative air quality analysis to ensure the protection of air quality when impacts from the sum of BLM-authorized projects in the planning area approach a level of concern as determined in consultation with state, local, federal, and tribal agencies. The task force would like to add language to Alternative B to clarify state primacy over air quality. Revised management action with additional language in red: BLM shall work cooperatively with WY Department of Environmental Quality Air Quality Division to support a quantitative air quality analysis to ensure the protection of air quality when impacts from the sum of BLM-authorized projects in the planning area approach a level of concern as determined in consultation with state, local, federal, and tribal agencies. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-29 | 1017 Alternative A Coordination with local and state agencies to control dust on unimproved dirt roads will occur where necessary. Alternative A is preferred because the language in Alterative B stating the BLM will "[r]equire dust abatement measures for all BLM authorized actives" is unclear and too broad of a statement. Alterative A is preferred because it includes a statement on coordination with local and state agencies and specificity that dust abatement will occur on unimproved dirt roads. | Management Action 1017 proposes a full range of alternatives and impacts for each is disclosed in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-30 | 1106, 1107, 1108 Alterative A from management action 1107 with amended/ additional text Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site- specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site- specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas, as needed. To achieve consistency across jurisdictions, particularly in the checkerboard, the task force suggests the BLM use the text from Management action 1107 in the final RMP with the additional text included in red for Management action 1106, 1107 and 1108: Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site-specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site- specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas, as needed. For mining activities with a mine permit issued by WDEQ-LQD, follow the soil handling and reclamation plan for hard to reclaim soils as outlined in the state mine permit. | A full range of alternatives are evaluated for these management actions that relate to erodible soils. Impacts from each of the alternatives are available in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13210-31 | 1109 Alternative D with amended/ additional text Apply, on a case-by-case basis, photo-point monitoring of channel crossings, culverts, borrow ditch outlets, and surface disturbance. The task force requests inclusion of additional language to Alternative D, drawn from Alternative B. This inclusion ensures that photo-point monitoring is applied only on disturbances greater than ½ an acre, and only on a case-by-case basis. Alterative D with revised text is preferred because Alternative B requires the broad application of photo-point monitoring regardless of nuanced circumstances. Alterative D, with revised text, created greater flexibility for the BLM as to when to require photo-point monitoring. Revised management action with additional language in red: For surface disturbances greater than ½ acre, apply, on a case-by-case basis, photo-point monitoring of channel crossings, culverts, borrow ditch outlets, and surface disturbance. | A full range of alternatives are evaluated for this management action. Impacts from each of the alternatives are available in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13287-33 | The DEIS addresses impacts of fossil fuel extraction on global climate change to a certain extent, but does a limited job of outlining the impacts by alternative of methane produced by cattle and sheep, and provides no analysis of the reduction in carbon sequestration that results from heavy livestock grazing. See DEIS at 4-10, 4-13. The Social Cost of Carbon (SCC) Public-lands livestock grazing has been shown to decrease carbon sequestration in habitats similar to the Rock Springs Field Office (Carter et al. 2011, Attachment 15, Kauffman et al. 2022, 2023 Attachments 16, 17). The agency must take the legally required hard look at greenhouse gas and carbon sequestration consequences of livestock grazing, by alternative, both direct and cumulative impacts on net carbon emissions. | An analysis for global carbon sequestration is outside the scope of this RMP. Emissions data by alternative for grazing activities is included in Appendix P. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13353-1 | MA 1012 We would like to offer the following amendment to the language in Alternative B. "BLM shall work cooperatively with WY Department of Environmental Quality Air Quality Division to conduct conformity analysis and determinations for BLM action in accordance with the Clean Air Act for all proposed projects located within designated non- attainment areas." This change will clarify state primacy over air quality. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13353-2 | MA 1013 We would like to offer the following amendment to the language in Alternative B. "BLM shall work cooperatively with WY Department of Environmental Quality Air Quality Division to determine, on a case-by-case basis and in accordance with the Rock Springs Air Resources Management Plan, the level of air analysis, including air quality modeling, necessary to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies for all project level EISs and Environmental Assessments." This change will clarify state primacy over air quality. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |

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| 801 - Physical Resources-Air Quality (1000-1017) | #13542-8 | MA#1010. Alternative B. 2-7 What "mitigation measures within BLM's authority" exist? Wyoming has primacy for air quality within Wyoming's borders. Please analyze in detail, disclose to the public, and define in the RMP what BLM's mitigation measures to reduce air quality impacts includes | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-9 | MA#1010. Alternative B. 2-7 The RMP states that the BLM would "Implement measures within the BLM's authority to reduce air quality impacts from BLM actions and work cooperatively with industry...", but it does not state what mitigation measures are within BLM's authority. Please analyze in detail and disclose to the public all potential mitigation measures that the BLM anticipates using. | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-10 | MA#1013. Alternative B, C, and D. 2-8 The Wyoming Department of Environmental Quality Air Quality Division has been delegated the authority by the EPA to oversee the implementation of the Clean Air Act in Wyoming. What additional analysis and mitigation is the BLM suggesting that they have the authority to require facilities do? Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-11 | MA#1017. Alternative B and D. 2-9 The Wyoming Department of Environmental Quality Air Quality Division has been delegated the authority by the EPA to oversee the implementation of the Clean Air Act in Wyoming. What additional dust abatement measures is the BLM suggesting that they have the authority to require facilities do? In addition, not all best management practices will work for all applications. For example, at trona mines, using traditional dust suppression chemicals on roadways is undesirable because it will cause impurities and issues in the quality of the soda ash being produced. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-61 | Literature Cited. Environmental Protection Agency (EPA). 2014. LC-15 The air emissions inventory is published every 3 years by the EPA, therefore there are 2017 and 2020 data sets currently available for use and instead the BLM used 2014 data. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-62 | Page LC-15. Literature Cited. EPA. 2016. Hazardous Air Pollutants. LC-15 On January 5, 2022, the EPA issued a final rule that added 1-bromopropane to the Clean Air Act's list of hazardous air pollutants. This chemical would not have been in the BLM's analysis of hazardous air pollutants when it was accessed and reviewed in 2016. | The BLM does not analyze individual HAPs as part of the RMP analysis. See Appendix P. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-71 | Literature Cited. EPA. 2018. EPA's Facility Levels Information on Greenhouse Gases Tool (FLIGHT). LC-16 This dataset is old and was accessed over 5 years ago. This dataset is revised annually with the previous year's data mid-year. 2022 data is currently available for use and should be used in the BLM's analysis. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-72 | Literature Cited. Meteorological Solutions Inc. 2018. LC-16 This uses meteorological data from 2017, which is 5 years old. This weather station (Moxa Arch) is operated by the Wyoming Department of Environmental Quality Air Quality Division and is still operational today. The most recent annual report from 2022 should be accessed and used to represent air quality and weather data from the area. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-74 | Literature Cited. Wyoming DEQ. 2015. LC-16 The Wyoming Ambient Air Monitoring Annual Network Plan is from 2015. This plan is revised annually. The most recent version available on DEQ AQD's website was published in June 2023. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-91 | Appendix P. P.6. Emissions Calculations. P-11 The 20-year period for emissions calculations estimates started in 2012. This 20-year period is now more than halfway over. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions |

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| | | | have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-92 | Appendix P. P.6.1. Emissions Development Assumptions. P-12 The analysis uses the potential to emit rather than actual emissions to calculate actual emissions, which is very unlikely to occur. Much of the actual emissions data for large facilities is available to the public, including the BLM, through the EPA. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The BLM's emission estimates at the RMP level are intended to be conservative estimates based on broad assumptions, not to represent actual development or provide precise emissions estimates, but to disclose potential emissions based on resource development under the different alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13542-93 | Appendix P. P.6.3. Trona Mining Emissions Estimation. P-15 The emissions calculations section is using the 2012 Mineral Potential Report, which is reporting the total amount mined in 2010. The amount of trona being mined in the KSLA has increased in the 13 years since this data was collected. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #13564-1 | The Greenhouse Gas Emissions section of the RMP describes the higher emissions of Alternative C and the decreased emissions in Alternative B. However, when comparing the numbers given in Table 4-3.1-Total Federal Oil and Gas Greenhouse Gas Emissions, Alternative D offers the most moderate effects in all categories. Preservation of the land reduces the opportunity to manage it for conservation purposes such as fire and invasive species management. Conservation on the other hand will allow the land to be used now and continue to be used for future generations while also adapting to the ever-changing landscape. It is essential to use the tools necessary to help curb the effects of climate change while also working to conserve BLM land. | The EIS evaluates a full range of alternatives, each of which is detailed in Chapter 2, with the impacts from each presented in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13584-2 | According to Appendix P, emissions associated with the production of renewable energy are accounted for in the GHG inventory, but emissions reductions or offsets from production of renewable energy on BLM land are not addressed. | The BLM is unable to account for potential emission reductions from renewable energy at the RMP stage since that would require an assumption that emission reductions or offsets would occur, which may or may not be the future case. Any emission reductions would not likely be realized within the planning area, but outside the state and are therefore out of scope for the RMP analysis. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13585-65 | d. The BLM failed to take into consideration the emerging carbon capture, utilization, and storage (CCUS) technology in addressing air quality impacts and modeling. The failure to consider this new technology and how it will help reduce air quality impacts from resource development has resulted in an over exaggeration of air quality impacts and subsequently additional restrictions on development under Preferred Alternative B. The BLM must provide a supplemental EIS that incorporates discussion on CCUS and the impact this technology has on reducing air pollution. The BLM also should include a management action for air quality that addresses CCUS technology. See Attach. 10, Final Report Integrated Commercial Carbon Capture and Storage (CCS) Prefeasibility Study at Rock Springs Uplift, Wyoming. | The BLM can not factor in nor require the use of CCUS for future development. Should a project proponent voluntarily opt to use CCUS technology for future development, the BLM would assess the emissions reductions at the time the site-specific NEPA analysis is completed for the project. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-26 | Greenhouse Gas Emissions Appendix T, particularly Table T-7 and pages T-13 through T-15, of the Draft EIS is confusing and only estimates greenhouse gas emissions for Alternative C. Draft EIS, App'x T, pp. T-13 to T-16. BLM should provide the greenhouse gas emission estimates for all the proposed alternatives; not just the alternative that allows the maximum amount of development. | GHG emissions by Alternative are presented in Appendix P. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-27 | These federal Class I areas do not include any BLM wilderness study areas or BLM areas of critical environmental concern. In fact, there are no federal Class I areas located within the draft RMP planning area. All other areas of Wyoming, including the areas covered under this draft RMP and EIS, are classified as Class II areas. 42 USC § 7472 and 40 CFR § 52.2621. This means that economic growth may occur in those Class II areas in a manner consistent with preserving Wyoming's clean air resources. Congress recognized that primacy provides states with the ability to balance the state's economic growth with preservation of its clean air resources. See 42 USC § 7401; see also Wyo. Stat. Ann. § 35-11-102 (policy and purpose of the Wyoming Environmental Quality Act). | The EIS evaluates a full range of alternatives, each of which is detailed in Chapter 2, with the impacts from each presented in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-28 | Management actions 1010 through 1015 provided on pages 2-7 through 2-8 indicate that BLM will work directly with stakeholders to address air quality and identify mitigations strategies. BLM seems to dismiss the fact that WDEQ has been granted primacy for all air quality authority in Wyoming. BLM needs to be clear that BLM will coordinate with WDEQ and that WDEQ regulates air quality in Wyoming | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-29 | Air Quality Emissions The introductory paragraph on page 3-1 indicates that air quality emissions have been updated. However, the EPA's 2014 National Emissions Inventory (NEI) air quality emissions data used by BLM in its analysis is almost a decade old. (ex. App.T-7; LC-15, P-12) EPA releases its NEI every three years. The EPA released its 2017 NEI in 2020 and released its 2020 NEI in 2023. The DEQ/AQD recommends that BLM update its' air quality emissions data. The DEQ/AQD notes that it collects statewide emissions data from Wyoming sources. If BLM is interested in learning more about that data, please contact the DEQ/AQD. | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air | #13624-30 | Ozone Nonattainment Section 3-1 and Q.3 (and other sections and pages) discuss the "Upper Green River Basin ozone nonattainment area". EPA has several different ozone standards. EPA has designated all areas of Wyoming as attainment/unclassifiable for all of EPA's ozone standards, with the exception of its 2008 ozone standard. 40 | All references to the UGRB ozone nonattainment area will be updated to include 2008 in the descriptor. However, BLM's obligations under the General Conformity Rule still apply even after EPA re-designates the area as Maintenance from Non-attainment. |

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| Quality (1000-1017) | | C.F.R. § 81.351. And, EPA has determined that the UGRB had attained the 2008 ozone standard. 40 C.F.R. § 52.2623. And, in 2015, EPA promulgated a more stringent ozone standard. EPA designated all areas of Wyoming, including the UGRB, as attainment/unclassifiable for the 2015 Ozone NAAQS. 40 C.F.R. § 81.351. Therefore, to avoid confusion, the DEQ/AQD recommends that whenever the BLM references the "Upper Green River Basin 2008 ozone nonattainment area" in the Draft RMP/EIS, it assures that "2008" has been included in the descriptor. | |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-32 | Appendix G, Table G.1 - Summary of Land Health Standards, Standard 6 "Air Quality" Page G-10 describes Standard #6 as "Air quality meets Wyoming standards". For each allotment listed in table G-1, BLM indicates that the air quality is "unknown", "meeting," or "unevaluated." To be consistent with the CAA, the DEQ/AQD suggests that all areas should be listed as "meeting". See 40 C.F.R. § 81.351 and § 52.2623. | See updated to Appendix G as appropriate. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-35 | Air Monitoring Section Q.5.4 discusses Air Monitoring and includes several references and weblinks to air monitoring networks. The DEQ/AQD suggests BLM include references to Wyoming DEQ/AQD's monitoring network. Information about Wyoming's network can be found at https://wyvisnet.com and in the DEQ/AQD's Annual Monitoring Network Plan for 2023, a copy of which is available on the DEQ's website. | WDEQ-AQD's monitoring network link will be added to Section Q.5.4 |
| 801 - Physical Resources-Air Quality (1000-1017) | #13624-36 | Rock Springs Planning Area and Overall Air Quality At the bottom of page T-8 and carrying over to T-9, BLM states that air quality in the Rock Springs planning area is good, "with the exception of ozone," and continues to state that "Sweetwater County is currently in nonattainment" for both the ozone NAAQS and WAAQS. That statement is incorrect. The WDEQ/AQD suggests that BLM correct it to read: "Air quality in the Rock Springs planning area is good". In 2012, EPA designated the Upper Green River Basin Area (UGRB) as a nonattainment area for the 2008 Ozone NAAQS. The UGRB 2008 ozone nonattainment area includes a portion of Sweetwater County. See 40 CFR § 81.351. In 2016, the EPA determined that the UGRB 2008 ozone marginal nonattainment area had attained the 2008 ozone NAAQS. See 40 CFR §52.2623. In 2018, the EPA designated all areas within Wyoming, including all areas within the RS RMP as attainment/unclassifiable for the 2015 ozone NAAQS." | See updated text in Appendix T. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13658-11 | The BLM creates management action 6001 related to carbon sequestration (CCS) in Table 2-1 but this is the only place in the document CCS is discussed. While there is a discussion about the Rock Springs uplift being suitable for CCS in the RFD, there is no explanation anywhere that provides reasoning for why Alternative B limits sequestration activities to the Rock Springs uplift. The RFD is also 13 years old and there have been significant advancements in knowledge and development of markets related to CCS since that time. BLM did not coordinate with the WDEQ or WOGCC in relation to CCS. Relatedly, there does not seem to be discussion of the effects of CCS projects or CO2 enhanced recovery projects on GHG emissions. While outdated, the RFD does identify 26 billion tons of CO2 storage potential. The Monell Unit CO2 flood in the project area also sequesters a significant volume of CO2 through enhanced oil recovery (EOR). It is estimated that approximately 90% of CO2 injected during tertiary recovery operations (EOR) remains in the ground. This does not appear to be accounted for in the GHG analysis. | Carbon sequestration is authorized by BLM as a right-of-way. See Section 4.19. CO2 emissions are covered in Appendix P and the Air Quality analysis. See also Appendix E for a list of laws, regulations, and policies that apply to the RMP. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13658-12 | To cure the deficiencies related to CCS, the RSFO should prepare a supplemental EIS ensuring the following are completed: 1) coordinate with WDEO/WQD and WOGCC regarding CCS proposed management actions in the RMP; 2) if BLM decides to retain any management action that may limit CCS, provide justification for how limiting sequestration helps meet management objectives and how CCS potential in the management area will be impacted; 3) if RSFO decides to retain the Rock Springs Uplift as the sole area available for such activities, include a description and map illustrating the area designated as open to CCS; and 4) Evaluate and assess the impacts of the different alternatives on CCS projects, especially as it related to ROW exclusions preventing projects both inside and outside of the RSFO planning area by preventing roads and pipelines; and 5) Include the effects of enhanced recovery projects and CCS projects on GHG emissions for each alternative. | Carbon sequestration is authorized by BLM as a right-of-way. See Section 4.19. CO2 emissions are covered in Appendix P and the Air Quality analysis. See also Appendix E for a list of laws, regulations, and policies that apply to the RMP. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13658-16 | Nowhere in the RMP did BLM analyze the potential for new technologies such as carbon capture and storage (CCS) to reduce GHG emissions from any source, but specifically from oil and gas sources. There is already one project immediately adjacent to the RSFO with approved Class VI injection wells with significant interest in the entire southwest Wyoming area for additional CCS projects. The GHG emissions and monetization through the use of social cost of GHGs evaluation completed by BLM is inappropriate, inaccurate, and incomplete. BLM must, at a minimum, consider the social costs of eliminating or reducing oil and gas production and the potential for CCS or other technologies to reduce GHG emissions from the various sources BLM used in the social cost of GHG emissions evaluation. | An analysis for global carbon sequestration is outside the scope of this RMP. Emissions data by alternative for all resources is included in Appendix P. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13658-18 | On page, 4-11 and 4-12, BLM presents calculations of direct emissions expected from oil and gas development. As previously mentioned, since BLM used an inappropriate RFD for oil and gas in this evaluation these emissions are likely grossly overstated (based on facts that the expected development and production used by BLM was much higher than the actual oil and gas development and production). BLM also did not rely on the recently issued EPA methane emissions rule in its evaluation of the emissions from oil and gas development. Using EPA's emissions estimating tool for fugitive emissions, which was created in 1995, is inappropriate when EPA's methane emissions rule was updated in 2023. These emissions calculations must be updated using more accurate data so that representative emissions are presented for consideration. | The emission estimates are intended to provide a point of comparison between the alternatives, not to represent an accurate assessment of what future emissions will actually be. The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |

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| 801 - Physical Resources-Air Quality (1000-1017) | #13658-19 | WOGCC understands the BLM's use of the term climate change to be global in scale. Avoiding the discussion related to a link between increased GHG emissions and climate change, the BLM, at a minimum, must demonstrate any alternative causes a global increase in GHG emissions to claim an effect. The BLM states that restricting oil and gas development in the planning area would reduce greenhouse gas emissions. For this to be true on a global scale BLM would need to demonstrate that the prevention of oil and gas production in the planning area would reduce global production of oil and gas or the analysis would have to compare the upstream GHG emissions from the planning area with the areas most likely to produce the oil and gas instead of the planning area. According to a recent study on upstream methane emissions, the Green River Basin in Wyoming has the lowest methane intensity in the US (Diana Burns and Emily Grubert 2021 Environ. Res. Lett. 16 044059). It is reasonable to assume that if producers in the planning area were not able to deploy capital to produce more oil and gas within the planning area they or other operators would deploy capital elsewhere to meet production demand. While statements that assert lower GHG emissions in the planning area are true, this cannot be tied to climate change by implying or stating that management actions will lower global GHG emissions without actually doing the analysis. Given that this administration has called on places like Argentina and Saudi Arabia to increase production it would be reasonable to compare upstream emissions from those countries. | A global scale cumulative analysis relating to foreign sources of emissions is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13665-23 | Energy demand in the United States and globally is expected to increase significantly in the coming years. See Energy Information Administration, Annual Energy Outlook (2022).20 If oil and gas cannot be produced efficiently and effectively in the United States, they will have to be imported from abroad, most likely from the OPEC countries that not only lack protective environmental controls but also have been-and continue to be-hostile to American and democratic interests around the world. See DOI-BLM-HQ-3100-2023-0001-EA at 26 (acknowledging that interruptions of domestic oil-and-gas lease sales result in greater dependence on foreign sources that are produced with less-protective environmental measures).21 Importing foreign petroleum also increases global emissions associated with shipping over long distances, risks ocean contamination from spills, increases emissions associated with transporting petroleum from coastal ports to inland destinations, and creates other needless hurdles to providing American consumers with petroleum. | Global supply and demand of fossil fuels and U.S. consumption of fossil fuels is outside the scope of analysis for this RMP. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13665-32 | Realizing that honest disclosure of the negative impacts that can emanate from importing oil and gas in lieu of domestic production is critical to reasoned decision-making, federal agencies often employ "substitution" analyses in their NEPA review. BOEM, for example, recently pointed out that limiting federal offshore oil-and-gas production would mean that "[t]ankering across the Pacific, [Gulf of Mexico], or Atlantic Regions may increase substantially due to an expected increase in foreign oil imports." See 2023-2038 National Outer Continental Shelf Oil and Gas Leasing Program at 212-13.30 Similarly, in discussing the "no action" alternative to lease sales in another NEPA evaluation, BLM applied substitution analysis in a recent EA prepared specifically to evaluate the greenhouse-gas emissions impacts of oil-and-gas development, and observed that "[c]hoosing the No Action alternative [instead of the development-friendly alternative] would not prevent future leasing" or reduce greenhouse emissions associated with oil-and-gas consumption. See DOI-BLM-HQ-3100-2023-0001-EA at 10.31 BLM found just the opposite: reducing domestic supplies of oiland- gas "would likely lead to the import of more oil and natural gas from other countries, including countries with lower environmental and emission control standards than the United States." Id. at 26. | Global supply and demand of fossil fuels and U.S. consumption of fossil fuels is outside the scope of analysis for this RMP. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13720-15 | A.1.5 Noise The DRMP DEIS directs oil and gas operators to, "Limit noise to less than 10 decibels above ambient measures (20-24 dBA) at sunrise at the perimeter of a lek during active lek season." This is an incorrect characterization of ambient noise levels in undisturbed habitats in the Green River Basin, and makes the noise level ceiling 34 dBA. When sound levels exceeded 24 dBA in the Pinedale Anticline gas field, sage-grouse lek attendance fell by 89%. The importance of considering noise influences on sage-grouse cannot be overstated. Masking the sounds of communication used by mating Greater sage-grouse has been scientifically shown to deter attendance at their leks, influencing population declines. Grouse use leks to display elaborate acoustic and visual performances to attract and select mates. They also depend on vocal communication between females and nestlings during brood rearing. A key research paper from the National Park Service and Colorado State scientists (Barber, 2010) introduces two key, new metrics for measuring the effects of noise on animals. The first, "alerting distance," is the distance at which sounds can be heard: these may be sounds made by a species to alert others to danger, or sounds made by predators (which prey animals want to hear, so as to take cover). The second is "listening area," the full area around an animal in which it can hear other animals' calls, footsteps, and wingbeats. A key insight offered by this approach is that even moderate increases in background noise can drastically reduce an animal's listening area, and its ability to survive. To establish baseline sound levels, acousticians and bioacousticians (and many local governments) commonly measure decibels ("dBA"), with a standard called "L90." This is the sound level that is exceeded 90% of the time (or is the quietest 10% of the time) and is the sound measurement that does not include most human-caused sounds. The ambient sound level measures all current sounds, and is characterized by "L50", which is a median of natural and human-caused sounds. Best available science established by experts in acoustical measurement recommends the use of L90 to establish baseline noise. In a state/federal study, the Pinedale Office of the Bureau of Land Management (BLM) and the State of Wyoming have established baseline noise levels at sage-grouse leks in the Upper Green River Valley. BLM and the | Specific greater sage-grouse related actions regarding noise are outside the scope of this RMP and are being addressed under separate RMP Amendment (see Section 1.4 Planning Criteria). See also Appendix A for Best Management Practices, which includes actions for reducing noise. |

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| | | Wyoming Game and Fish Dept. contracted with professional bioacousticians to document specific noise conditions within the Pinedale Anticline Project Area (PAPA) and chosen reference areas. One of the objectives of this study was to determine baseline sound levels at sage- grouse leks in undisturbed sagebrush habitat. (Ambrose, Florian, & MacDonald, 2014) At the three reference leks in the 2013 study for the time period 0000-0500, a time not influenced by grouse display sounds, the baseline sound level (L90) was 14.2 dBA. The Sound Levels study clearly indicated that baseline noise levels at sage-grouse leks in undisturbed sagebrush habitat in the Upper Green River Valley were 14.2 dBA. Our understanding of noise impacts to sage-grouse have improved in recent years. Studies in Wyoming indicate that sage-grouse populations decrease as fossil gas is developed and noise increases in important habitats. "Peak male attendance relative to the baseline was lower on noise leks than paired control leks… (73% decrease in abundance compared with paired controls). These decreases were immediate and sustained." (Blickley, Blackwood, & Patricelli, 2012) At the BLM Pinedale Anticline (PA) Annual Meeting on April 25, 2019, professional bioacousticians stated that when sound levels exceeded 24 dBA on the PA, sage-grouse lek attendance fell by 89%. In previous Pinedale Anticline noise studies, on sage-grouse lek complexes with the most noise, sage-grouse lek attendance also dropped dramatically. In 2009, in the development complex called Duke's Triangle, lek attendance fell by 41% and in 2012 lek attendance fell by 60%, compared to the previous two-year averages. We respectfully request that BLM maintains a noise level ceiling that is not to exceed 10 decibels above baseline, which would make the noise level ceiling 24 decibels. This is a standard more protective of Wyoming sage-grouse populations in Core Areas. | |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-48 | It is well understood that NOx and VOCs emissions contribute to ozone formation, however, these statements should also include a disclaimer that the WDEQ concluded that the trona mines do not contribute to the ozone non-attainment area due to the wind trajectories. This information was concluded by the WDEQ and agreed to by the EPA in 2011 and was the basis for the ozone non-attainment boundary. | The disclaimer can not be included since future trona operations, mining methodologies, and locations are unknown at this time. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-49 | Likewise, the 1998 visibility study also concluded the trona mines had no impairment on the basin. Further, the WDEQ has recently completed the regional haze glide path review which does not indicate trona (or coal for that matter) as significant contributors to visibility degradation. | The BLM will disclose through the NEPA process for any future implementation level actions whether BLM-authorized activities have the potential to contribute to visibility impairment at Class I areas. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-50 | EPA regulates regional haze at Title 40 (Protection of Environment) of the Code of Federal Regulations (CFR, WY SIP) §51.308. Any effort by the BLM to regulate the same is redundant and an overreach. EPA and WDEQ's required regional haze glide path required visibility to improve through 2064, so any reference of regional haze impairment does not properly include the regulatory restrictions and should be struck from this plan or revised for accuracy. | The BLM does not regulate any emission sources as that is the purview of the WDEQ-AQD. The BLM will disclose through the NEPA process whether BLM-authorized activities have the potential to contribute to visibility impairment at Class I areas. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-102 | MA #1010 Alternative B Physical Resources (PR) - Air Quality (1000-1017) Implement mitigation measures within the BLM's authority to reduce air quality impacts from BLM actions and work cooperatively with industry and other permittees to adopt additional measures to minimize air quality impacts from BLM management actions. Industry position: Not acceptable Reason: The BLM should also work cooperatively with WDEQ-AQD to implement mitigation measures for BLM actions. The WDEQ-AQD is responsible for developing federally approvable plans and rules necessary to ensure the State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). | The BLM does work cooperatively with WDEQ and does not address regulated emissions sources that are under the purview of WDEQ and require CAA permits. BLM mitigation measures would apply to emissions sources that are not directly regulated by WDEQ such as fugitive dust, construction equipment emissions and drill rig emissions. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-103 | MA #1011 See MA #1010 Industry position: Not acceptable Reason: The BLM should also work cooperatively with WDEQ-AQD to implement mitigation measures for BLM actions. The WDEQ-AQD is responsible for developing federally approvable plans and rules necessary to ensure the State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). | The BLM does work cooperatively with WDEQ and does not address regulated emissions sources that are under the purview of WDEQ and require CAA permits. BLM mitigation measures would apply to emissions sources that are not directly regulated by WDEQ such as fugitive dust, construction equipment emissions and drill rig emissions. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-104 | MA #1012 Conduct conformity analyses and determinations for BLM actions in accordance with the Clean Air Act for all proposed projects located within designated non-attainment areas. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to ensure actions are in accordance with the Clean Air Act. | General Conformity is a CAA requirement that applies only to Federal agencies and Federal actions occurring in nonattainment or maintenance areas. The BLM is required by regulation to work with WDEQ and EPA if a proposed action in the nonattainment or maintenance area exceeds de minimis emissions thresholds and requires a formal Conformity Determination. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-105 | MA #1013 Determine, on a case-by-case basis and in accordance with the Rock Springs Air Resources Management Plan, the level of air analysis, including air quality modeling, necessary to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies for all project level EISs and Environmental Assessments. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-106 | MA #1014 Alternative B Determine, on a case-by-case basis, the need for quantitative air quality analyses (including modeling) to assess the potential air quality impacts and/or the effectiveness of mitigation strategies of proposed actions. Make determination in consultation with state, local, federal, and tribal agencies. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |

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| | | required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies. Alternative D Determine, on a case-by-case basis, the need for quantitative air quality analyses (including modeling) to assess the potential air quality impacts and/or the effectiveness of mitigation strategies of proposed actions. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies. | |
| 801 - Physical Resources-Air Quality (1000-1017) | #13751-107 | MA #1014 ALT B + C Support a quantitative air quality analysis to ensure the protection of air quality when impacts from the sum of BLM-authorized projects in the planning area approach a level of concern as determined in consultation with state, local, federal, and tribal agencies. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the need for quantitative air quality analyses of proposed actions. ALT D Support a quantitative air quality analysis to ensure the protection of air quality when impacts from the sum of BLM-authorized projects in the planning area approach levels of concern. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine the need for quantitative air quality analyses of proposed actions. | See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13754-13 | The Wyoming Department of Environmental Quality has been granted primacy to regulate and enforce the provisions of the CAA from the U.S. Environmental Protection Agency. Any decisions on activities to regulate or enforce air quality must be deferred to Wyoming DEQ. The Associations understand that the BLM is currently required to consider air quality impacts in the course of an environmental review. Unfortunately, that analysis is deficient because it holds static energy generation sources and their commensurate emissions. In reality, several electricity generating units have announced plans to convert to natural gas. The BLM should carefully analyze the real-world emissions implications of these announced plans to determine true emissions estimates. | The BLM does not regulate any emission sources as that is the purview of the WDEQ-AQD. The BLM will disclose through the NEPA process whether BLM-authorized activities have the potential to contribute to air quality impacts. It is outside the scope of analysis for this RMP to estimate emissions reductions or timing for permitted EGUs in the planning area that may be converting to other fuel sources. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13767-1 | Alternative B of Management Action No. 6001 ("Alternative B"), the objective of which, as stated in Table 2-1 of the Draft RMP, is to "limit geologic sequestration exploration and site characterization projection and commercial sequestration projects and facilities to the Rock Springs Uplift." Further, one of the other stated goals for Management Action No. 6001 is to "improve air quality in the planning area as practicable." By limiting commercial sequestration projects and facilities to the Rock Springs Uplift, Alternative B eliminates Frontier's ability to capture any CO2 from the AOR and transport it via pipeline to the SCS Hub - and dispose of it into Class VI wells which have been constructed with funds granted by the Department of Energy. Instead, Alternative B assumes that the pore space formations underlying the Rock Springs Uplift is sufficient storage for the entirety of the AOR without any technical subsurface characterization study publicly available to support such an assumption and without regard to the location of each emissions site relative to the Rock Springs Uplift. | An analysis of global or regional carbon storage needs is outside the scope of this RMP. See Section 1.4 for Planning Criteria. A full range of alternatives for right-of-way access for carbon sequestration is proposed under management action 6001. See Chapter 4 for the impacts of each alternative. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13767-2 | Alternative B of the Draft RMP also aims to exclude 2,480,876 surface acres from use for rights of way, which would include BLM surface acres that are checkerboarded with private lands that host CO2 emission facilities in the AOR. Alternative B would effectively condemn pore space underlying these private lands by prohibiting these private emitters from implementing a point-source capture site at its respective facilities due to the fact that the continuous, checkerboarded BLM surface acreage will be excluded from rights of way to the federal pore space. Furthermore, the exclusion of rights of way would prevent any efforts to transport the CO2 via pipeline from its source to the storage site, whether it's the SCS Hub or the Rock Springs Uplift. These consequences make it difficult to comprehend how Alternative B "improves air quality" when almost 70 percent of the BLM surface acres are excluded from rights of way, dramatically reducing the potential for any commercial carbon sequestration projects from being commissioned in the AOR. | A full range of alternatives are analyzed for various rights-of-way restrictions and special management concerns. See Chapter 4 for impacts from each alternative. Also, Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including addressing in footnote 6 that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-4 | Because soda ash is critical for the production of other essential products, production that cannot occur in the US will almost certainly move to foreign nations, most likely China, and will likely be produced using synthetic soda ash production technology. Over 40% of the worlds soda ash production already occurs in China and given the rarity of trona resources worldwide, the vast majority of that is synthetic soda ash production. Synthetic soda ash production uses salt, limestone, and ammonia to produce soda ash, rather than trona. This process is much more complicated and more energy intensive compared to natural soda ash production trona. US natural soda ash production from trona uses less than 50% of the energy and results in 37% less greenhouse gas emissions for each ton produced compared to synthetic soda ash production. Any reduction in ability to produce natural soda ash in the KSLA will not only move that production to foreign nations but will result in higher energy consumption and greenhouse gas emissions, all of which are in direct conflict to goals of the Biden Administration. | A global scale analysis relating to foreign sources of trona is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air | #13787-12 | Page 4-6 forth bullet of the Draft RMP/DEIS includes the following "The magnitude of and increases in estimated emissions from solid mineral development, including surface mining of coal and trona, at the level of development | The disclaimer can not be included since future trona operations, mining methodologies, and locations are unknown at this time. |

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| Quality (1000-1017) | | predicted for all alternatives over the life of the plan have the potential to cause impacts related to fugitive dust and increased ozone formation, visibility degradation, and atmospheric deposition." Likewise on page 4-11 "The quantities of emissions estimated from fluid mineral development and solid mineral development activities are based on reasonably foreseeable estimates of development rates, well counts, production rates, and existing technologies. The estimated emissions should not be considered definitive and may not reflect actual emissions at the time of development, due to the unknown future demand for mineral development over the life of the plan. Although the quantity of emissions calculated for this category may not represent actual emissions from eventual development, the magnitude of estimated emissions of several pollutants for this source category is considerable. Emissions of PM10, VOCs, and NOX from this category have the highest potential to impact air quality under each of the alternatives. These impacts could include increased ambient concentrations of NOX and increased ozone formation in summer and winter." It is well understood that NOx and VOCs emissions contribute to ozone formation; however, these statements should also include a disclaimer that the WDEQ concluded that the trona mines do not contribute to the ozone non-attainment area due to the wind trajectories. This information was concluded by the WDEQ and agreed to by the EPA in 2011 and was the basis for the ozone non-attainment boundary. Likewise, the 1998 visibility study also concluded the trona mines had no impairment on the basin. Further, the WDEQ has recently completed the regional haze glide path review which does not indicate trona (or coal for that matter) as significant contributors to visibility degradation. EPA regulates regional haze at Title 40 (Protection of Environment) of the Code of Federal Regulations (CFR, WY SIP) §51.308. Any effort by the BLM to regulate the same is redundant and an overreach. | |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-13 | EPA and WDEQ's required regional haze glide path required visibility to improve through 2064, so any reference of regional haze impairment does not properly include the regulatory restrictions and should be struck from this plan or revised for accuracy. | The BLM is required by NEPA to disclose potential impacts to air resources and that includes impacts to AQRVs that may occur from a proposed action. WDEQ's regional haze glide path is a cumulative metric that would be addressed in the Cumulative impacts section of a project-specific NEPA analysis. Project-specific impacts to air quality and AQRVs would be disclosed in the NEPA document but do not constitute a regulatory analysis. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-16 | This process is much more complicated and more energy intensive compared to natural soda ash production trona. US natural soda ash production from trona uses less than 50% of the energy and results in 37% less greenhouse gas emissions for each ton produced compared to synthetic soda ash production. Any reduction in ability to produce natural soda ash in the KSLA will not only move that production to foreign nations, but will result in higher energy consumption and greenhouse gas emissions. | A global scale analysis relating to foreign sources of trona is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-31 | MA #1010 PR-01, PR-02, PR-1.1, PR- 1.2, PR-2.1, PR-2.2 Surface disturbing activities will be managed to prevent violation of air quality regulations. Industry position: Acceptable Implement mitigation measures within the BLM's authority to reduce air quality impacts from BLM actions and work cooperatively with industry and other permittees to adopt additional measures to minimize air quality impacts from BLM management actions. Industry position: Not acceptable Reason: The BLM should also work cooperatively with WDEQ-AQD to implement mitigation measures for BLM actions. The WDEQ-AQD is responsible for developing federally approvable plans and rules necessary to ensure the State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). Same as Alternative A Industry position: Acceptable Same as Alternative B Industry position: Not acceptable Reason: The BLM should also work cooperatively with WDEQ-AQD to implement mitigation measures for BLM actions. The WDEQ-AQD is responsible for developing federally approvable plans and rules necessary to ensure the State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). Alternatives A and C are acceptable | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-32 | MA #1011 PR-01, PR-02, PR-1.1, PR- 1.2, PR-2.1, PR-2.2 Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval, etc.) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases). Industry position: Acceptable See MA #1010 Industry position: Not acceptable Reason: The BLM should also work cooperatively with WDEQ-AQD to implement mitigation measures for BLM actions. The WDEQ-AQD is responsible for developing federally approvable plans and rules necessary to ensure the State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). See MA #1010 Industry position: Acceptable See MA #1010 Industry position: Not acceptable Reason: The BLM should also work cooperatively with WDEQ-AQD to implement mitigation measures for BLM actions. The WDEQ-AQD is responsible for developing federally approvable plans and rules necessary to ensure the State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). Alternatives A and C are acceptable | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-33 | MA #1012 PR-01, PR-02 No similar action Conduct conformity analyses and determinations for BLM actions in accordance with the Clean Air Act for all proposed projects located within designated non-attainment areas. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to ensure actions are in accordance with the Clean Air Act. Same as Alternative B Industry position: Not acceptable Same as Alternative B Industry position: Not acceptable On a case-by-case basis, the BLM will work cooperatively with the WDEQ-AQD to ensure proposed actions are in accordance with the Clean Air Act. | General Conformity is a CAA requirement that applies only to Federal agencies and Federal actions occurring in nonattainment or maintenance areas. The BLM is required by regulation to work with WDEQ and EPA if a proposed action in the nonattainment or maintenance area exceeds de minimis emissions thresholds and requires a formal Conformity Determination. |

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| 801 - Physical Resources-Air Quality (1000-1017) | #13787-34 | Management Actions Analysis Table MA# Goal/Obj. Alternative A Alternative B Alternative C Alternative D Proposed Alternative MA #1013 PR-01, PR-02, PR-1.1, PR- 1.2, PR-2.1, PR-2.2 BMPs will be used whenever practical to reduce general air quality impacts and visibility impacts. Application of special requirements (including BMPs) is identified on a case-by-case basis. The rationale for BMPs is identified and documented in site- specific NEPA or other analyses. BMPs are applied as stipulations, conditions of approval, and terms and conditions in the authorizing document. When practicable, projects will be designed to reduce effects to sensitive airsheds. Design considerations include use of BACT, timing, sequencing, and placement of facilities. Industry position: Acceptable Determine, on a case-by-case basis and in accordance with the Rock Springs Air Resources Management Plan, the level of air analysis, including air quality modeling, necessary to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies for all project level EISs and Environmental Assessments. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies. Same as Alternative B Industry position: Not acceptable Same as Alternative B Industry position: Not acceptable Alternative A is acceptable | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-35 | MA #1014 PR-01, PR-02, PR-1.1, PR- 1.2, PR-2.1, PR-2.2 No similar action Determine, on a case-by-case basis, the need for quantitative air quality analyses (including modeling) to assess the potential air quality impacts and/or the effectiveness of mitigation strategies of proposed actions. Make determination in consultation with state, local, federal, and tribal agencies. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies. Same as Alternative A Industry position: Not acceptable Reason: No similar action listed for Alternative A. Determine, on a case-by-case basis, the need for quantitative air quality analyses (including modeling) to assess the potential air quality impacts and/or the effectiveness of mitigation strategies of proposed actions. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine potential air quality impacts from proposed actions and subsequent potential mitigation strategies. On a case-by-case basis, the BLM will work cooperatively with the WDEQ-AQD to determine the need for quantitative air quality analyses of proposed actions. | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13787-36 | MA #1014 PR-01, PR-02, PR-1.1, PR- 1.2, PR-2.1, PR-2.2 No similar action Support a quantitative air quality analysis to ensure the protection of air quality when impacts from the sum of BLM-authorized projects in the planning area approach a level of concern as determined in consultation with state, local, federal, and tribal agencies. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the need for quantitative air quality analyses of proposed actions. Same as Alternative B Industry position: Not acceptable Reason: Same reason as listed for Alternative B. Support a quantitative air quality analysis to ensure the protection of air quality when impacts from the sum of BLM-authorized projects in the planning area approach levels of concern. Industry position: Not acceptable Reason: The State of Wyoming retains primacy in regulating sources of air pollution as required under the Clean Air Act (CAA). The BLM should work cooperatively with the WDEQ-AQD to determine the level of air analysis and should use this information to determine the need for quantitative air quality analyses of proposed actions. On a case-by-case basis, the BLM will work cooperatively with the WDEQ-AQD to determine the need for quantitative air quality analyses of proposed actions. | Mitigation measures will vary on a case-by-case basis based on the magnitude of the pollutants of concern and the results of the NEPA air quality analysis. Until a site-specific NEPA analysis is completed, identification or need of additional air mitigation measures is unknown. See Appendix A for Best Management Practices |
| 801 - Physical Resources-Air Quality (1000-1017) | #13793-2 | As you are aware, global demand for clean energy supplies is soaring, led by economic growth and fuel switching in China, Japan, South Korea, Taiwan and India and Europe's push to diversify from embargoed Russian natural gas. Natural gas from western basins in the U.S. can play a key role in meeting those energy needs by providing reliable, cleaner baseload power to displace higher carbon fuels and foster renewable energy deployment by balancing intermittency issues and supporting related supply chains. While WSTN shares the mission of reducing global greenhouse gas (GHG) emissions, our original vision is predicated on the fact that GHG emissions know no national or regional boundaries. When that reality is factored into GHG analyses, it is clear that not all emissions are additive to the global tally - some are reductive. Wyoming's in particular would be reductive if exported to Asian markets to displace coal-fired generation. A 2021 study commissioned by WSTN found that the export of Rockies-sourced liquefied natural gas from the North American West Coast to China, India, Japan, South Korea, and Taiwan would reduce net life cycle emissions by 42%-55% if used to replace coal-fired energy generation in those countries. As you consider alternatives that balance all legally designated uses of federal land in the decision area, WSTN encourages consideration of additional research showing that responsible, well-regulated natural gas production and exports can actually reduce global emissions, as evidenced by the study's findings, available here. | A global scale analysis for energy demand is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |

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| 801 - Physical Resources-Air Quality (1000-1017) | #13793-4 | Second, there is no realistic expectation that global and domestic natural gas demand is going away for decades, so the best option is to produce it with as low a methane intensity and as many environmentally responsible practices as possible. The regulatory and environmental requirements for natural gas and oil production on federal lands are the most environmentally advantageous sources for these natural resources. Throttling or outright stopping natural gas production on federal leasing areas will limit the best available product from being exported to meet the growing demand, which will in turn lead to a higher emissions cost. What is sold in the global environment matters because pollution knows no geographical boundaries. It is noteworthy that two Wyoming companies are producing some of the least methane-intense natural gas in the world - at roughly one-tenth the prevailing industry intensity - and are commanding a premium for this. These are precisely this type of operational and technological leaps forward that should be encouraged to help the U.S. in terms of economic, energy and national security. | A global scale analysis for energy demand is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13793-6 | The widespread removal of federal land from productive economic uses as proposed by Alternative B will chill investment and the accompanying employment and rural economic contributions that come from private investment. For example, Alternative B would lower the potential for future investment in carbon capture and storage related to natural gas production in the management area, and limit Wyoming's ability to keep leading the nation in advancement of this critical tool for decarbonization at scale - one supported by the Biden Administration. | A full range of alternatives are analyzed for various rights-of-way restrictions and special management concerns. See Chapter 4 for impacts from each alternative. Also, Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including addressing in footnote 6 that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). |
| 801 - Physical Resources-Air Quality (1000-1017) | #13811-2 | Furthermore, BLM has not provided sufficient justification for the shift. BLM states that a reduction in rights-of-way would reduce associated emissions-generating activities, but it then concedes that "[e]stimated emissions are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts."8 Alternative B's shift to exclusion areas would thus no better achieve BLM's conservation goals than the currently applicable Green River RMP, but it would have drastic socioeconomic effects on the Planning Area. | A full range of alternatives are analyzed for various rights-of-way restrictions and special management concerns. See Chapter 4 for impacts from each alternative. See Appendix N for socioeconomic report. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13845-12 | Executive Order (EO) 14008, entitled "Tackling the Climate Crisis at Home and Abroad" (January 2021), calls for a government-wide approach to the climate crisis, including by increasing resilience to the impacts of climate change by conserving our lands, waters, and biodiversity. Following the issuance of EO 14008, the Department of the Interior (DOI) released a series of updated climate policy Departmental Manuals (DM) on September 28, 2023. In particular, 604 DM 1, "Landscape-Level Management", outlines the department's policy, which also applies to its component Bureaus, including the BLM, to advance landscape-level approaches, including prioritizing landscapes for conservation. Furthermore, 523 DM 1, "Climate Policy", directs DOI to, among other actions, "…integrate climate change adaptation strategies into its policies, planning, programs, and operations, including, but not limited to, park, refuge, and public land management…"6 The manual further acknowledges the inherent uncertainty associated with climate change and directs DOI to utilize: (1) vulnerability assessments, (2) scenario planning, (3) adaptive management, and (4) other risk management or other decision-making approaches. Finally, as related to the Rock Springs RMP, the policy directs the inclusion of "…measurable goals and performance metrics in all management plans that address climate change adaptation, regularly assess and report on whether adaptive actions are achieving desired outcomes…"7 Pew recognizes that this guidance was not in place during most of the time that the Rock Springs RMP was being drafted, but appreciates that within the range of alternatives, the BLM has included conservation designations and management prescriptions that will contribute to climate resilience, protection of biodiversity, and wildlife connectivity. Protecting intact landscapes and rivers through LWCs, ACECs, WSAs, and Wild and Scenic Rivers can ensure these areas serve as climate refugia. Further, connectivity between intact landscapes must be maintained and enhanced. Additional recommendations around these allocations, designations, and connectivity are included in the relevant sections above. Finally, to track and understand changing conditions, a monitoring program is necessary. Tracking the impacts of climate change and how management is affecting landscapes, can inform BLM's approach to adaptive management. Recommendation: Pew encourages the BLM to adhere to these updated guidance manuals within its resource management planning process, including for the Rock Springs RMP. | See Section 1.4 Planning Criteria and Appendix E for a list of laws, regulations and policies that apply to the RMP. As future policies and rules are developed, the BLM will incorporate changes as appropriate. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13865-51 | Prohibitions on motorized travel and topsoil sale areas may inhibit the timely closure and reclamation of CCR impoundments or landfills and increase negative environmental impacts to public lands in the subject area. Raw materials for cover would potentially need to be sourced from areas outside the DEIS and trucked long distances to the site. The increase in truck traffic on established roads will negatively impact wildlife and air quality in the subject area. | A full range of alternatives regarding air quality, off-road vehicle travel, and rights-of-ways have been analyzed and impacts are disclosed from each alternative in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-56 | A. Analysis of air quality impacts is not compliant with NEPA. The Rock Springs draft EIS discussion and analysis of air quality impacts has substantial shortcomings and is non-compliant with the National Environmental Policy Act, the Clean Air Act (CAA), and the Federal Land Management Policy Act. In particular, BLM has not conducted any air quality modeling to determine what the impacts will be from activities authorized under the RMP, especially new oil and gas leasing and development. Nor does the draft EIS assess whether those air quality impacts will comply with National Ambient Air Quality Standards (NAAQSs) and other Clean Air Act requirements. | Modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no air quality impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. |
| 801 - Physical Resources-Air | #13899-57 | The draft EIS acknowledges that BLM management activities in the Rock Springs office will generate tens of thousands of tons of air pollution each year. It estimates the total annual emissions of seven different pollutants under each of the four draft EIS alternatives, and reports that estimate for three different time periods: year 1 of the | Air modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality |

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| Quality (1000-1017) | | RMP, year 10, and year 20.119 For example, for ozone precursors, the draft EIS predicts that BLM-approved activities under Alternative B will emit nearly 34,000 tons per year (tpy) of volatile organic compounds (VOCs), and 14,000 tpy of Nitrogen Oxides (NOx), by year 20 of the RMP.120 VOC and NOx emissions under other draft EIS alternatives will be even greater.121 These emissions are "predicted to be predominantly attributable to . . . oil and gas development" authorized under the RMP.122 The draft EIS, however, never analyzes the reasonably foreseeable impacts of those emissions on ambient air quality. The draft EIS, for example, does not forecast how much ambient ozone levels will increase as a result of the 34,000 tpy of VOCs and 14,000 tpy of NOx BLM expects in year 20. Nor does the draft EIS determine whether RMP-related VOC and NOx emissions will prevent this region of Wyoming from complying with the ozone NAAQSs. This latter omission poses a particular concern because part of the planning area is already designated as a nonattainment area.123 And the draft EIS anticipates that "oil and gas development [activities] would increase in every year of the study period as additional wells come into production."124 | impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. BLM's emission estimates are developed to provide a conservative estimate of potential emissions based on resource allocations in each alternative. They do not represent a probable or likely emissions scenario based on proposed development. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-58 | Moreover, BLM acknowledges that the "Forest Service, National Park Service, and the U.S. Fish and Wildlife Service have [ ] expressed concerns regarding potential atmospheric deposition (i.e., acid rain) and visibility impacts within downwind PSD Class I and sensitive Class II areas under their administration throughout Wyoming."125 But the draft EIS does not evaluate how air pollution from BLM-authorized activities will degrade visibility and increase acid rain at the Fitzpatrick Wilderness Area to the north and the Mount Zirkel Wilderness Area to the south. Both of these are designated as Class I areas under the Clean Air Act and lie within 100 miles of the planning area.126 | Air modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-59 | All the draft EIS says about air quality impacts is that "BLM authorized oil and gas activities ... over the life of the plan have the potential to contribute to increased ambient concentrations of ozone," and "the potential to cause impacts related to visibility degradation and increased atmospheric deposition," with Alternative B likely causing smaller impacts than Alternatives A, C, and D.127 This level of generality does not satisfy NEPA because, as one court noted, it just "informs [BLM] and the public what they already know."128 Such a cursory statement could be made about any oil and gas proposal anywhere in the country. It does nothing to inform BLM and the public about the impacts of the proposed RMP. Courts have made clear that NEPA requires more than that.129 | Air modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-60 | Analyzing the foreseeable impacts to ambient ozone concentrations, visibility, and atmospheric deposition is not only feasible, but regularly done as part of preparing RMPs. In numerous other RMPs, BLM has conducted modeling to answer these questions.130 By contrast, "no air quality modeling has been conducted for this RMP"131. It is entirely feasible for the agency to have done modeling for the Rock Springs draft RMP as well. | Modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. BLM's emission estimates are developed to provide a conservative estimate of potential emissions based on resource allocations in each alternative. They do not represent a probable or likely emissions scenario based on proposed development. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-61 | Analysis of air quality impacts is not compliant with FLPMA or Clean Air Act BLM's treatment of air quality also does not satisfy FLPMA or the Clean Air Act. FLPMA requires that, in the "development and revision of land use plans, [BLM] shall . . . provide for compliance with applicable pollution control laws," including the ozone NAAQS.132 Likewise, FLPMA's implementing regulations provide that "each land use authorization shall contain terms and conditions which shall . . . require compliance with air . . . quality standards established pursuant to applicable Federal or State law."133 Indeed, Congress tasked BLM with the responsibility of managing public lands to protect the quality of "air and atmospheric" resources under FLPMA. | BLM's proposed management actions for Air Resources (pages 2-5-2-9) as well as the Air Quality Adaptive Management Strategy (Appendix Q) ensure that the BLM will provide for compliance with all applicable state and Federal air quality rules and regulations for any BLM authorized activities that occur in the planning area. The RMP does not authorize development to occur without subsequent site-specific NEPA analysis. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-62 | Under the Clean Air Act, federal agencies must not "engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to a [state implementation plan (SIP) designed to ensure compliance with the National Ambient Air Quality Standards (NAAQS)]."135 An action conforms to a state implementation plan if it does not "cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area."136 The draft EIS acknowledges these requirements.137 But BLM fails to demonstrate whether or how they will be achieved, or how projected future ozone formation from BLM-permitted oil and gas development under the RMP will impact the region's continued nonattainment with the ozone NAAQS. This does not satisfy FLPMA or the CAA. It also conflicts with NEPA's requirement to explain how the different alternatives "will or will not" comply with "other environmental laws and policies."138 | BLM's proposed management actions for Air Resources (pages 2-5-2-9) as well as the Air Quality Adaptive Management Strategy (Appendix Q) ensure that the BLM will provide for compliance with all applicable state and Federal air quality rules and regulations for any development that occurs in the planning area. The RMP does not authorize development to occur without subsequent site-specific NEPA analysis. Air quality modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-63 | The draft EIS states that it plans to implement an "air quality adaptive management strategy" in "lieu of emissions modeling."139 That does not excuse the agency's obligations under NEPA, FLPMA and the CAA. BLM's adoption of an RMP represents a set of critical decisions on how to manage the planning area, and NEPA requires the agency to take a hard look at the impacts of those decisions before making them.140 Moreover, the strategy does not commit to any modeling or analysis that would substitute for an RMP analysis of air quality impacts. | Modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. BLM's emission estimates are developed to provide a conservative estimate of potential emissions based on resource allocations |

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| | | | in each alternative. They do not represent a probable or likely emissions scenario based on proposed development. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-64 | These regional analyses do not appear to isolate BLM's contribution to regional ozone and other air quality impacts, and thus cannot substitute for an RMP analysis.142 | Modeling is not a requirement for RMPs as they are high level planning documents that do not authorize new development but only establish areas that will be open to development. There are no activities that are authorized to occur as a result of this RMP, therefore no impacts are occurring as a result of this RMP revision. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. BLM's emission estimates are developed to provide a conservative estimate of potential emissions based on resource allocations in each alternative. They do not represent a probable or likely emissions scenario based on proposed development. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-65 | The adaptive management strategy also provides no mandate that implementation of the RMP will ensure compliance with the NAAQS and other air quality laws. The strategy is vaguely worded and rife with generalities, lacking any hard triggers for specific actions. BLM also states that the adaptive management strategy is not itself part of the RMP decision document143 and thus appears not to be mandatory under FLPMA. As such, the adaptive management strategy may not even be fully implemented. | The Adaptive Management Strategy discusses the framework for how the BLM will analyze and mitigate air resource impacts at the time development is proposed. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-66 | CLIMATE CHANGE A. Addressing climate impacts from greenhouse gas emissions We thank BLM for discussing in the draft EIS how greenhouse gas (GHG) emissions associated with coal, oil shale, and oil and gas leasing and development will substantially impact the planning area. Given the ever-increasing body of scientific knowledge of the impacts that a changing climate will have on human health, stress on community infrastructure, and critical ecosystem services, it is imperative that BLM move swiftly to reduce GHG emissions stemming from fossil fuel development and production on federal public lands. We commend BLM on the management actions in Alternative B that would have the effect of limiting GHG emissions - specifically, closing 2,186,218 acres to oil and gas leasing, 3,535,546 acres to coal leasing, and 2,122,282 acres to oil shale leasing development.144 This would have the effect, according to our analysis of BLM's GHG emissions estimates, of potentially reducing GHG emissions by around 41 percent across 20 years.145 We recommend that BLM consider additional measures to further limit mineral development, thereby further reducing GHG emissions and resulting climate impacts, pursuant to its authority under FLPMA. | The BLM has proposed a full range of alternatives for managing mineral development. Impacts from each alternative can be found in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-67 | New information over the last five years about the impacts of GHG emissions on climate, along with the Biden Administration's climate goals and commitments, are clear reasons to support management actions proposed in the draft RMP's Alternative B to limit the leasing and development of fossil fuels. Several successful challenges to RMPs for failing to properly consider climate impacts in the context of multiple NEPA analyses not only illustrate the importance of evaluating climate in NEPA documents, but also point to the importance of incorporating management direction and goals regarding GHG emissions directly into the RMP itself. | The BLM has proposed a full range of alternatives for managing mineral development. Impacts from each alternative can be found in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-68 | NEPA thus requires full and proper analysis of GHG emissions and the resulting climate change impacts.157 Combined with BLM's authority and conservation mandates under FLPMA, the agency can and should, in the Rock Springs RMP and EIS, address the contributions of oil and gas and coal leasing to climate change and the impacts adversely affecting the resource area. We therefore appreciate that BLM has conducted climate analysis in the draft EIS and support Alternative B's management decisions for oil, gas, and coal allocations that would result in the greatest GHG emissions reduction. | The BLM has proposed a full range of alternatives for managing mineral development. Impacts from each alternative can be found in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-69 | It is evident from the estimated SC-GHG emissions that Alternative B is the best choice, among the alternatives analyzed, to reduce GHG emissions and their contributions to climate impacts in the planning area. For this reason, among others discussed in these comments, we urge BLM to incorporate Alternative B's management actions for oil, gas, and coal leasing into the final RMP. | The BLM has proposed a full range of alternatives for managing mineral development. Impacts from each alternative can be found in Chapter 4. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-70 | BLM should adopt the Air Quality Adaptive Management Strategy and consider implementing an emissions management framework in the Rock Springs RMP. BLM is considering applying a Wyoming-specific Air Quality Adaptive Management Strategy (AQAMS).164 We agree with BLM's plan to regularly update the AQAMS with relevant scientific information so that project impacts are minimized. By doing so, BLM would be tracking and monitoring emissions to ensure that its decisions are fully informed and adapt to changing conditions. However, we are concerned that BLM appears to be waiting to conduct emissions modeling, stating that "not all of the data for these projects are known,"165 rather than providing a full accounting of projected future air quality emissions now in the EIS. Moreover, we urge BLM to incorporate an estimated downstream GHG monitoring and reporting mechanism into the AQAMS. | The Adaptive Management Strategy discusses the framework for how the BLM will analyze and mitigate air resource impacts at the time development is proposed. Air quality impacts are assessed at the time development is proposed and are dependent on a number of factors including timing, location, extent and type of development, and the magnitude of emissions from the project. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-71 | Additionally, to align with climate science, account for and mitigate GHG emissions and climate impacts to the resources of the management area, and help meet the Biden Administration's climate commitments, we recommend that BLM consider implementing an emissions management framework.166 Of primary importance is reducing GHG emissions stemming from future fossil energy production in the planning area. This framework should include achieving[...] net zero GHG emissions167 from fossil fuels in the planning area by 2030 and a continuing decline curve of fossil fuel development and production thereafter until zero emissions are realized. The | Please see Section 1.4 for the Planning Criteria for the RMP and Appendix E for a list of laws, regulations and policies that apply. An emissions management framework is outside the scope of this RMP. |

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| | | emissions management framework would entail calculating, tracking, and publicly disclosing lifecycle emissions of development and production (and potential development and production), which BLM could then use to guide land management and fossil fuel-related decisions. | |
| 801 - Physical Resources-Air Quality (1000-1017) | #13899-72 | BLM should incorporate in the EIS minimization tactics that include prioritizing development with minimal impact on natural systems, implementing technology-based measures to capture leaking emissions, managing and mitigating downstream GHG emissions, and enabling the option for implementing additional restrictions on fossil fuel development and production over time. | The BLM Air Quality Adaptive Management Strategy and Air Resource Management Actions will allow the BLM to apply additional mitigation measures or pollutant minimization practices if a projects air quality impacts result in air quality violations or unacceptable impacts to AQRVs. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13925-5 | management actions in Alternative B that purport to regulate air and water quality unlawfully attempt to preempt state programs. BLM lacks any regulatory authority over air or water quality. Congress delegated air and water quality authority to the Environmental Protection Agency, which in turn delegated it to the State of Wyoming or Wyoming Department of Enviornmental Quality (WDEQ). BLM can neither develop new standards or enforce the air or water quality rules. The draft RMP also fails to recognize WDEQ best management practices for nonpoint source water pollution. | The BLM does not regulate any emission sources as that is the purview of the WDEQ-AQD. The BLM will disclose through the NEPA process whether BLM-authorized activities have the potential to contribute to air quality impacts. The BLM does not develop new standards or conduct enforcement of air quality rules and regulations. Any additional mitigation measures that the BLM may require for resource protection are included as stipulations, conditions of approval or requirements in a decision related to the NEPA for a proposed project. Such mitigation is not in conflict with the regulatory authority of WDEQ. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13951-14 | Page 2-7; Physical Resources #1010 " Implement mitigation measures within the BLM's authority to reduce air quality impacts from BLM actions and work cooperatively with industry and other permittees to adopt additional measures to minimize air quality impacts from BLM management actions." -Alternative A is the best option because It is unclear under Alterative B whether the "implementation of mitigation measures within BLM's authority to reduce air quality impacts" would be done in coordination with WDEQ. Alterative A is preferred because it is a continuation of existing practices which includes coordination with the WDEQ - ensuring preservation of state primacy over air quality. | A full range of alternatives for air quality management has been proposed in the EIS. See Chapter 2 for details of the alternatives and Chapter 4 for the impacts of each alternative. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13951-15 | Page 2-9; Physical Resources #1017 "Require dust abatement measures for all BLM authorized activities and coordinate with local and state agencies to control dust on roads using BMPs (Appendix A)." -Alternative A is preferred because the language in Alterative B stating the BLM will "[r]equire dust abatement measures for all BLM authorized actives" is unclear and too broad of a statement. Alternative A is preferred because it includes a statement on coordination with local and state agencies and specificity that dust abatement will occur on unimproved dirt roads. | A full range of alternatives for air quality management has been proposed in the EIS. See Chapter 2 for details of the alternatives and Chapter 4 for the impacts of each alternative. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13951-16 | Page 2-12; Physical Resources #1114 "Implement practices, determined on a case-by-case basis, as needed to protect groundwater and prevent soil contamination. Prohibit pits that store liquids. Use closed-loop drilling systems for oil and gas operations where groundwater is within 50 feet of the surface. Dispose of hazardous materials (see Glossary) at Department of Environmental Quality (DEQ) or U.S. Environmental Protection Agency (EPA) approved disposal facilities." -Alternative B is not preferred because it includes additional requirements and restrictions beyond Appendix A that have not been justified by the BLM. Alternative D is preferred because of its case-by-case approach and its link to Appendix A (Project Design Features and Best Management Practices). | A full range of alternatives for groundwater management has been proposed in the EIS. See Chapter 2 for details of the alternatives and Chapter 4 for the impacts of each alternative. |
| 801 - Physical Resources-Air Quality (1000-1017) | #13953-14 | In exchange for this substantial loss of revenue and employment, the BLM estimates some reductions in environmental impacts associated with oil and gas development. In particular, the BLM focuses on a reduction in emissions for four criteria pollutants, including greenhouse gases ("GHG"). Table 4-3.1 shows direct federal oil and gas well development and GHG emissions across the alternatives. Alternative B is argued to align with the Department of the Interior's climate change priorities most closely. However, climate change is asserted to be global phenomenon, described as a long-term shift in global climate patterns. While the literature cited on climate change by the BLM in the Draft RMP is over a decade old and evidently no longer accessible,4 the basic tenants are that climate change is driven by "global anthropogenic CO2 emissions."5 Once emitted and mixed in the atmosphere, it is impossible to distinguish who emitted the GHGs, not to mention where the carbon was originally produced. We also know that oil and gas are widely traded international commodities that are produced by numerous countries around the globe. As commodities, the price of the oil in the market depends on global supply and global demand. Supply and demand ebb and flow, but the global projections for oil and gas consumption continue to rise as the middle class in the developing world expands. Therefore, unless the BLM can illustrate how reducing oil and gas development inside the RMP area will reduce the global demand for oil and gas, it is improbable that any real or meaningful reductions in GHG emissions or climate change impacts will result from more restrictive management. If oil and gas cannot be produced in places like the RMP area, the continued demand will dictate its production somewhere else. Based on the Environmental Performance Index produced by Yale University, the Institute for Energy Research reported that the average barrel of non-U.S. produced oil is produced in a country with an environmental score that 23.6% lower than that of the U.S. Therefore, producing oil and gas in the United States, and specifically in Wyoming under our current regulatory frameworks, is likely to have a net positive environmental impact for GHG emissions and broadly. Although this administration is unabashedly opposed to fossil fuels produced in the United States, purposefully stopping production on our public lands is cutting off our nose to spite our face. A supplemental EIS should be completed to evaluate the true environmental impact of reducing oil and gas development in the Rock Spring RMP area. | An analysis determining the global demand for oil and gas development is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |

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| 801 - Physical Resources-Air Quality (1000-1017) | #14023-9 | The Rock Springs District RMP should be driven by a conservation agenda, one that will conserve the best of the unique landscapes, habitats, and native biodiversity it sustains. The RMP should reflect the District's place in the larger Wyoming landscape; its critical role in providing winter habitat for wildlife that summers tens, if not hundreds of miles to the north. It should also protect, and where and whenever possible enhance habitats for resident wildlife and native plants. It should evaluate, consider, and mitigate how energy development impacts air- and watersheds far removed from the district. It should recognize, respect, and protect the history and locations once utilized by our indigenous ancestors. | A full range of alternatives for all resource management has been proposed in the EIS. See Chapter 2 for details of the alternatives and Chapter 4 for the impacts of each alternative. |
| 801 - Physical Resources-Air Quality (1000-1017) | #14032-2 | Air Quality Related Values (AQRVs) The Draft EIS includes a discussion of existing air quality that does not include meaningful metrics to characterize air quality and AQRVs in and near the planning area such as background concentrations or trends for AQRVs. Establishing the existing environment for air quality and AQRVs provides the baseline from which changes in air quality resulting from the alternatives can be judged. Therefore, we recommend characterizing the existing air quality baseline for criteria pollutants and AQRVs, including visibility and resources sensitive to deposition. For criteria pollutants, we recommend coordinating with the Wyoming Department of Environmental Quality (WYDEQ) to establish representative design values (background pollutant concentrations) for criteria pollutants based on the most recent, relevant monitoring data. Alternatively, data are available from the EPA at our design values webpage.1 Monitoring locations and data can also be accessed by the public through EPA's outdoor air monitor webpage,2 as well as through the EPA's Air Quality System (AQS) for AQS users | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #14032-3 | It is unclear from review of the Draft RMP/EIS whether issues identified during the 2017 review have been resolved and why data for emission estimates have not been updated beyond the 2012 timeframe. We recommend providing the detailed emission inventory as an appendix to the Final RMP/EIS since this is the basis for the analysis and estimates cannot be verified in the current summary form. In addition, we recommend updating the emission estimates using the latest emission estimation methods and for years that more closely align to the 20-year planning period for which the RMP would apply (2023-2043). When calculating emissions from oil and gas development and other sources of air pollutants, we recommend considering the impact of regulations that have been promulgated since 2012.7,8 We also recommend using the latest version of the National Emission Inventory (NEI) | The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives |
| 801 - Physical Resources-Air Quality (1000-1017) | #14032-4 | The Draft EIS does note that, "the magnitude of estimated emissions of several pollutants for [the fluid mineral development and solid mineral development] category is considerable. Emissions of PM10, VOCs, and NOX from this category have the highest potential to impact air quality under each of the alternatives. These impacts could include increased ambient concentrations of NOX and increased ozone formation in summer and winter." (Draft RMP/EIS p. 4-11). Further the Draft RMP/EIS notes that, "Predicted NOX, PM10, and PM2.5 emissions from oil and gas development under all alternatives could result in degraded visibility and atmospheric deposition." (Draft RMP/EIS p. 4-11). Draft RMP/EIS page 4-6 also identifies the potential for increased ozone in the RSFO and Upper Green River Ozone Nonattainment area as well as decreased visibility and increased atmospheric deposition at Class I areas. However, the magnitude of these potential impacts is not estimated for the alternatives. It is unclear why the BLM's Western United States photochemical grid modeling platform was not used to inform this analysis. We recommend that the Final EIS include a summary of the regional modeling study and model performance. We recommend comparing modeled emissions to those estimated for the alternatives and anticipated impacts under the alternatives as they relate to modeled impacts. This approach would better inform what impacts could be expected due to sources of pollution in the RSFO. We recommend that the Final RMP/EIS include protections such that it would be reasonable to conclude that development allowed under the alternatives would not result in emissions within the Upper Green River Ozone Nonattainment area that would cause or contribute to any new violation of the ozone standard, interfere with the provisions in the applicable State Implementation Plan (SIP), increase the frequency or severity of any existing violation of the ozone standard, or delay timely attainment of the standard. | Air quality impacts are evaluated at the implementation stage, when an actual development is proposed so the analysis is representative of the time and scale of the proposed development and specific mitigations can be applied if unacceptable impacts may result from the proposed activity. The BLM is bound by the Clean Air Act General Conformity regulations for any BLM-authorized activities occurring in the UGRB ozone nonattainment area and can not authorize activities that would cause or contribute to any new violation of the ozone standard, interfere with the provisions in the applicable State Implementation Plan (SIP), increase the frequency or severity of any existing violation of the ozone standard, or delay timely attainment of the standard. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #4026-1 | Chapter 3.2 Geology. The document lacks discussion of Surficial Geology, specifically, the extensive sand dune fields of the Killpecker Sand Dunes complex. This dune field is believed to have existed since at least the Pleistocene, approximately 13,000 years BP (Mayer and Mahan, 2017). These dunes stretch across a good portion of the district and call for specific management efforts to address their unique geologic, hydrologic, biotic, and cultural attributes. There is also no Chapter 4 (Environmental Consequences) discussion of surficial geology (sand dunes). More discussion on the significance of the Killpecker Dunes should also be added and incorporated into appropriate Chapter 4 sections of this document as presented in Comments 11 and 12. | A range of alternatives designed to address these unique geologic, hydrologic, biotic and cultural attributes are found in MA # 1100 - 1116 . MA# 1510, 2218, 5105, 5106, 5122-5127, 5402, 5403, 7446-7515, 7548-7554 . Geology is discussed in Section 3.2. Impacts to these resources are described throughout Chapter 4. Specifically 4.6, 4.7, 4.8, 4.15, 4.17. Additional information is included in the Analysis of Management Situation and the Mineral Potential Report. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #4026-11 | Chapter 4.(new) Surficial Geologic Resources, Assumptions. I recommend a new section be placed in Chapter 4 concerning assumptions made for surficial geologic resources. The wording for the first new assumption might be: "The Killpecker Sand Dunes complex is an erosionally-fragile, surficial geologic feature possessing unique hydrologic, vegetative, biotic, cultural, recreational, and scenic resources." The wording for a second new assumption in this chapter might be: "The percentage of dune field presently stabilized with native vegetation will likely decrease with ongoing climate change and future surface-disturbing activities. | A range of alternatives designed to address these unique geologic, hydrologic, biotic and cultural attributes are found in MA # 1100 - 1116 . MA# 1510, 2218, 5105, 5106, 5122-5127, 5402, 5403, 7446-7515, 7548-7554 . Geology is discussed in Section 3.2. Impacts to these resources are described throughout Chapter 4. Specifically 4.6, 4.7, 4.8, 4.15, 4.17. Additional information is included in the Analysis of Management Situation and the Mineral Potential Report. |

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| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #7196-2 | I strongly believe that uncommon paleontological and geologic resources should be given the maximum protection in the final plan. The objective should be to eventually withdraw these parcels from mineral exploration or development. In the meantime they should be strongly protected with NSO stipulations on existing leases and ROW exclusions. Habitat damage can often be mitigated or restored, but special geologic features are non-renewable and damage is completely irrevocable, lost to the public and to science. | Management actions for all four alternatives are identified for geologic resources and can be found in the DEIS from management action 1100-1116.<br>Paleontological resources are protected under the Paleontological Resources Preservation Act of 2009 |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #9853-2 | Soil and Geologic Resources (Pages 2-9 through 2-13) Extraction of paleontological resources generally involves some level of ground-disturbing activities, but following an excavation, it is typical for the site to be restored and for any disturbance to be mitigated. Therefore, SVP prefers management alternatives that allow for some temporary soil disturbance and/or make exceptions for scientific research. Below are SVP's comments and preferences: * Because paleontological resources may occur in different settings, SVP prefers Alternative A for MA#s 1107 and 1108 (Page 2-10) where soil disturbance is avoided but not prohibited, allowing flexibility to conduct carefully managed surface disturbance activities, such as paleontological excavations. For example, important fossil localities may be located in areas with greater than 25% slopes; therefore, Alternative B which prohibits surface disturbances where slopes are greater than 25% is not preferred by SVP. * While SVP supports the requirement for a soil health and restoration plan, discoveries of paleontological resources generally take place where erosion of rocks takes place; therefore, for MA# 1112 (Page 2-11), Alternative C is adequate from a purely paleontological standpoint. * For all other MA#s with different alternatives, SVP is fine with Alternative B preferred by BLM. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | Management actions for all four alternatives are identified for geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13210-30 | 1106, 1107, 1108 Alterative A from management action 1107 with amended/ additional text Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site- specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site- specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas, as needed. To achieve consistency across jurisdictions, particularly in the checkerboard, the task force suggests the BLM use the text from Management action 1107 in the final RMP with the additional text included in red for Management action 1106, 1107 and 1108: Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site-specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site- specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas, as needed. For mining activities with a mine permit issued by WDEQ-LQD, follow the soil handling and reclamation plan for hard to reclaim soils as outlined in the state mine permit. | Chapter 4.23.5 analyzes erosion control plans under Alternative B.<br>MA#1111 identifies managing soils in partnership with private, local, state, tribal and federal programs. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13210-31 | 1109 Alternative D with amended/ additional text Apply, on a case-by-case basis, photo-point monitoring of channel crossings, culverts, borrow ditch outlets, and surface disturbance. The task force requests inclusion of additional language to Alternative D, drawn from Alternative B. This inclusion ensures that photo-point monitoring is applied only on disturbances greater than ½ an acre, and only on a case-by-case basis. Alterative D with revised text is preferred because Alternative B requires the broad application of photo-point monitoring regardless of nuanced circumstances. Alterative D, with revised text, created greater flexibility for the BLM as to when to require photo-point monitoring. Revised management action with additional language in red: For surface disturbances greater than ½ acre, apply, on a case-by-case basis, photo-point monitoring of channel crossings, culverts, borrow ditch outlets, and surface disturbance. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13210-32 | 1114 Alternative D Implement practices, on a case-by-case basis, as needed to protect groundwater, vulnerable aquifers, and prevent soil contamination (Appendix A). Alternative D is preferred because of its case-by-case approach and its link to Appendix A (Project Design Features and Best Management Practices). Alternative B is not preferred because it includes additional requirements/restrictions beyond Appendix A that have not been justified by the BLM. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13210-33 | 1115 Alternative A No similar action Alterative A is preferred over Alternative D because the language in Alternative D is already a requirement and doesn't need to be restated in the RMP (and isn't included in Alternatives A, B, and C). | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13210-34 | 1116 Alternative A The natural values of Boars Tusk, Pilot Butte, and Emmons Cone would be protected. Surface occupancy and surface disturbing activities are prohibited in these areas unless such activity would enhance management of these geologic features. Interpretive facilities would be allowed. The BLM owns the surface, but not the mineral estate. Alterative A was selected because it is a continuation of current practice, and the task force did not see a need to adjust the current management regime for these areas. | Management actions for all four alternatives are identified for each individually proposed ACEC and can be found in the DEIS from management action 7400-7570. |

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| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13210-117 | 1113 Alternative D Reclaim disturbed areas in compliance with BLM Wyoming and High Desert District Reclamation Plan (Appendix I), and other current guidance. Require that surface-disturbing activities minimize the surface disturbance footprint to the maximum extent possible to limit the areas requiring reclamation. Limit disturbance of desirable vegetative communities established during interim reclamation when implementing final reclamation. This supports agreement in principle #2 by protecting quality wildlife habitat to support healthy and abundant wildlife populations. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13353-3 | MA 1109 We request inclusion of additional language to Alternative D, drawn from Alternative B. This inclusion ensures that photo-point monitoring is applied only on disturbances greater than ½ an acre, and only on a case-by-case basis. Alterative D, with revised text, is preferred because Alternative B requires the broad application of photo-point monitoring regardless of nuanced circumstances. Alterative D, with revised text, created greater flexibility for the BLM as to when to require photo-point monitoring. Revised management action with additional language would read: "For surface disturbances greater than ½ acre, apply, on a case-by-case basis, photo-point monitoring of channel crossings, culverts, borrow ditch outlets, and surface disturbance." | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13353-4 | The BLM preferred Alternative B emphasizes the use of natural processes for forestry management and specifcally prohibits fuel reduction operations on slopes steeper than 25%. Page 4-126 of the Draft RMP/DEIS states, "Limiting logging operations on slopes steeper than 25% (compared to 45%, under Alternative A) would reduce lands where commercial harvests could be conducted, thereby increasing fuel loading that support high-intensity fires." However, the Draft RMP/DEIS does not adequately account for the impacts to soils from the high intensity fires that will result from prohibiting heavy equipment and increasing fuel loading on slopes greater than 25%. Fires that consume large quantities of surface organic matter reduce the moisture- holding capacity and productivity of the soils. Post-fire surface runoff causes increased water and wind erosion as a result of these physical soil changes. Factors controlling post-wildfire erosion differ from site to site. Therefore, a one-size-fits-all management action to prohibit heavy equipment and fuels reduction on slopes steeper than 25% will exacerbate the hazardous fuels growth, increase fire intensity on the slopes, and the result in additional post-wildfire erosion to the soil. | Impacts to soil health and character from wildfires were analyzed in chapter 4.10.<br>MA#4014 identifies instances when logging operations could occur. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13364-3 | 4.4.1. asserts that "For the purposes of this analysis, wind and water erosion are the primary mechanisms for loss of soil productivity," and "removal of vegetation or biological soil crusts increases soil susceptibility to erosion via wind and water by decreasing soil strength, reducing infiltration, increasing runoff, altering soil structure, and reducing protection of the surface from raindrop impact." The RMP does not provide control data for its primary drivers of erosion, that is, the rate and impact of naturally occurring wind and water erosion on surface undisturbed by unnatural activities, which considerably undermines the credibility of this assumption. Additionally, the RMP does not account for the ways in which Mitigation measures counter and in many cases, largely curtail, erosion, which is fundamental to both the short term and long-term analysis. Lack of data notwithstanding, the RMP posits that, "less likelihood for surface disturbing activities in these areas, [results in] greater protection of soil resources." An unsound conclusion given that the RMP failed to establish a correlation through standard scientific methods, much less a causal relationship, between Short-term Surface Disturbances and erosion resulting in loss of soil productivity. | Impacts to soil health and character from wildfires were analyzed in chapter 4.10.<br>Impacts to soil resources are identified in Section 4.4 for each alternative. Page ES-1 addresses baseline data which is detailed in the Analysis of Management Situation. Soil Resources are covered in Section 2.1.3 |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-12 | MA#1104. Alternative B and D. 2-9 How does the BLM propose that facilities minimize salt and sediment loading to water resources due to natural causes? For the trona facilities, the Wyoming Department of Environmental Quality Land Quality Division and Water Quality Divisions already review and regulate salt and sediment loading to water resources. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | Jurisdiction of water quality can be found in section 4.5.1, and its analysis of environmental impacts follows.<br>Appendix A identifies Best Management Practices for proposed projects. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-13 | MA#1106. Alternative B, C, and D. 2-9, 2- 10 How long does the BLM anticipate that the coordination with NRCS will take for facilities to complete the proposed Order 2 (Alternative B), Order 3 (Alternative C), or the database (Alternative D) in order to foresee potential business impacts of these required soil surveys, sampling, evaluations, and classifications for each project? Please analyze in detail and disclose to the public your analysis of the timing impacts and potential environmental impacts from the change in agency position. | Impacts on soil resources were analyzed in chapter 4.4. Socioeconomic impacts can be found in Section 4.22. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-14 | MA#1103. Alternative B. 2-9 How does the BLM envision the inventory of public lands be conducted? Who is leading the effort? Who is paying for the effort? What methods will be used to ensure consistent data is being collected? Please analyze in detail and disclose to the public the process it will use to inventory the public lands. | Impacts on soil resources were analyzed in chapter 4.4. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-15 | MA#1107. Alternative B. 2-10 Why is the BLM prohibiting solid mineral leasing in areas where soils have any of the following: wind erodibility index greater than 100, saline, sodic, saline-sodic, 2:1 clays, sand dunes, slopes greater than 25%, slumps and creeps and/or rutting, and areas that are difficult to reclaim? Most of the RMP area exhibits at least one of these characteristics, as the area is a high desert. Specifically closing areas to solid mineral leasing when several leasable minerals, including trona, are mostly subsurface facilities with little to no surface impacts that could affect the soils. Please analyze in detail and disclose to the public the scientific basis that might | Impacts on soil resources were analyzed in chapter 4.4. |

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| | | logically connect underground activities with surface impacts, the agency's justification for the significant change in position, and what basis exists to override the Secretary's obligations to maximize the economic recovery of the federal mineral resources. | |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-16 | MA#1107. Alternative D. 2-10 What does the BLM foresee an approved mitigation plan to look like so facilities can analyze potential foreseeable business impacts from MA# 1107. Currently the Wyoming Department of Environmental Quality Water Quality Division has been delegated the authority to oversee the implementation of the NPDES program in Wyoming. What additional requirements is the BLM suggesting that they have the authority to require facilities do? Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | Impacts on soil resources were analyzed in chapter 4.4.<br>Jurisdiction of water quality can be found in section 4.5.1, and its analysis of environmental impacts follows.<br>Appendix A identifies Best Management Practices for proposed projects. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-17 | MA#1109. Alternative B. 2-11 What methodology does the BLM foresee regarding photo point monitoring so the facilities can anticipate potential business impacts stemming from this requirement? | The specific methodology of photo point monitoring are beyond the scope of this EIS and Resource Management Plan. Such details would occur at the implementation level. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-18 | MA#1111. Alternative B. 2-11 Alternative B states that "all methods" will be used to protect soils. "All methods" are never applicable to protect soils. Exceptions should be allowed under Alternative B. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | Impacts on soil resources were analyzed in chapter 4.4. BMPs are identified in Appendix A. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-19 | MA#1112. Alternative B. 2-11 How does the BLM propose that water quality would be enhanced by this management action? The majority of the RMP area is a high desert ecosystem which often struggles to maintain ground cover. More detailed information should be released on this management action so facilities can foresee potential impacts to the business. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | Impacts on soil resources were analyzed in chapter 4.4. BMPs are identified in Appendix A. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-20 | MA#1113. Alternative B. 2-11 Mines in the State of Wyoming are subject to regulation under the Wyoming Department of Environmental Quality Land Quality Division and must adhere to the approved reclamation plans within their individual permits to mine. How does the BLM anticipate mines handle complying with both the approved reclamation plans with the state and the BLM Wyoming Reclamation Policy? Will a memorandum of understanding be developed between DEQ LQD and BLM? Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. Wyoming DEQ is identified as a cooperating agency in Section 5.1.1. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-21 | MA#1115. Alternative D. 2-12 Mines in the State of Wyoming are subject to regulation under the Wyoming Department of Environmental Quality Land Quality Division and must adhere to the approved reclamation plans within their individual permits to mine. How does the BLM anticipate mines handle complying with both the approved reclamation plans with the state and the BLM Wyoming Reclamation Policy? Will a memorandum of understanding be developed between DEQ LQD and BLM? Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. Wyoming DEQ is identified as a cooperating agency in Section 5.1.1. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-22 | MA#1114. Alternative B. 2-12 Define "pit" within the RMP. Depending on the definition of "pit" there could be unforeseen business impacts on local industry. Sisecam recommends aligning with Wyoming State Engineer's Office definitions. | MA#1114 defines pits as storing liquids. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13542-58 | 4.4.3 Alternative B 4-22 Reclamation technologies for mined lands have been successfully implemented for many years that have enabled problematic soils to be reclaimed. New technologies are continually developed through research and field trials. We recommend that Alternative B be rejected as being too restrictive, particularly for underground mining. Alternative D should be accepted with revisions to assure appropriate reclamation techniques and monitoring on problem soils. This will be necessary in cases in which surface closures to facilities precludes production of leased and leasable trona. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13624-13 | The Draft RMP/EIS also fails to identify what areas within the RMP will be affected by this Management Action #1107 regarding soil erosion, nor why the management action is necessary. WDEQ requests BLM provide a map of the area affected by Management Action #1107 for public review. BLM should also acknowledge that WDEQ's Land Quality Division has extensive experience in reclamation of areas with poor soil and the regulation and enforcement of successful reclamation efforts through its mine permitting program. WDEQ's Land Quality Division has been regulating mining in Wyoming, including reclamation, since the passage of the Environmental Quality Act in 1973. WDEQ's Abandoned Mine Land Division also has experience in reclaiming legacy abandoned mines situated in areas with very poor soil quality. The Abandoned Mine Land Division state reclamation plan was approved by the Office of Surface Mining and Reclamation Enforcement on February 14, 1983. It is requested that BLM consult with WDEQ to revise Management Action 1107 so it reflects WDEQ's expertise, knowledge and experience in reclaiming environments within the State of Wyoming. Draft EIS, App'x H, p. 88. | Impacts on soil resources were analyzed in chapter 4.4. Wyoming DEQ is identified as a cooperating agency in Section 5.1.1. |

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| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13624-60 | Ch. 2#2-5#1101#Across all alternatives: "Apply guidelines and appropriate measures to all management actions (including reclamation) affecting soil health to decrease erosion and sedimentation, to achieve and maintain stability, and to support the hydrologic cycle by providing for water capture, storage, and release."#When guidelines and measures are associated with facilities that require WYPDES stormwater permit coverage, the RMP should recognize that guidelines and appropriate measures developed and utilized should be consistent with the Wyoming Pollutant Discharge Elimination Systems (WYPDES) Program, Stormwater Permitting requirements, including the use of best management practices (BMPs) to prevent erosion and sedimentation. | Impacts of discharged pollutants in water are analyzed in chapter 4.5.<br>Jurisdiction of water quality can be found in section 4.5.1, and its analysis of environmental impacts follows.<br>Appendix A identifies Best Management Practices for proposed projects. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13702-4 | Management Action 1107 in Alternative B would prohibit surface disturbing activity on soils that are erosive or have chemical and physical properties that make them hard to reclaim. Such lands would be closed to mine development and solid mineral leasing. This is unacceptable because reclamation is already required and adhered to in areas such as these. This is also effectively a land withdrawal that has not been legally executed under the Mineral Leasing Act and Mining Law of 1872. Wyoming state agencies including Wyoming Department of Environmental Quality and Wyoming Oil and Gas Conservation Commission have primacy in the case of solid and fluid minerals. | Impacts on soil resources were analyzed in chapter 4.4.<br>Wyoming DEQ is identified as a cooperating agency in Section 5.1.1. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13751-78 | B. Table 2-1 MA #1107 Alternative B would prohibit surface disturbing activity on soils that are erosive or have chemical and physical properties that make them hard to reclaim. Such lands would be closed to mine development and solid mineral leasing. This is technologically unsound because reclamation and revegetation practices are well developed and demonstrated for problematic soils. This is also effectively a land withdrawal that has not been legally executed under the Mineral Leasing Act and Mining Law of 1872. Alternative D is somewhat better than Alternative B but should not be used to restrict surface development where mitigation and reclamation practices can be utilized. Wyoming state agencies including Wyoming Department of Environmental Quality and Wyoming Oil and Gas Conservation Commission have primacy in the case of solid and fluid minerals | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws.<br>Wyoming DEQ is identified as a cooperating agency in Section 5.1.1. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13751-108 | MA #1107 Alternative A Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site-specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas as needed. Industry position: Not acceptable. Reason: These should not be avoidance areas in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. Alternative B Prohibit surface disturbing activities in areas where the soils have any of the following: * A wind erodibility index greater than 100 * Saline * Sodic * Saline-sodic * 2:1 clays * Sand dunes * Slopes greater than 25% * Slumps and creeps and/or rutting * Areas that are difficult to reclaim. Manage as: 1) no surface occupancy (NSO) for fluid minerals; 2) closed to mineral material sales/disposals; 3) closed to all solid mineral leasing. Industry position: Not acceptable. Reason: There should be no closures to trona leasing in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. Alternative D Avoid surface disturbing activities in areas with limited reclamation potential, subject to adequate mitigation of impacts following BLM mitigation policies. The operator must submit an approved mitigation plan before proposed project will be approved. * Controlled Surface Use (CSU) for fluid minerals. Industry position: Not acceptable. Reason: Hard to reclaim soils should not be an avoidance area in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. | Impacts on soil resources were analyzed in chapter 4.4. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13754-15 | Soil and Geologic Current U.S. Department of Agriculture, Natural Resource Conservation Sciences mapping and ecological site descriptions are behind schedule, so pinning any requirements on this basis at this time is not recommended. Obtaining soil samples for every site, as proposed, is excessive, time- consuming and often unwarranted. Given Wyoming's short growing season, requiring soil samples to be collected and analyzed without specific justification before development could result in substantial delays. It would also be useful for the NRCS to define what characteristics they are looking for before sampling (e.g., soil texture, pH, electroconductivity, etc.). Some tests can be conducted in the field, while many other tests are required to be analyzed in a lab. The decision to conduct soil sampling should be left to the discretion of the project proponent as they are ultimately responsible for successful restoration. The BLM must also ask whether field office staff have sufficient training to make these determinations. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13754-16 | often times areas with "limited reclamation potential" are areas which are already devoid of wildlife and not highly productive. Limited reclamation potential should not be a reason to dissuade or remove productive activities from those lands. As science and practices associated with reclamation and ecological restoration are advancing to become more predictive, understanding limiting factors is likely to go a long way in assisting reclamation in challenging environments. It is important to consider the growing body of knowledge regarding the use of seed | Impacts on soil resources were analyzed in chapter 4.4. |

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| | | mixes which are tailored to survive in limiting conditions (e.g., native halophytes in saline/sodic soils) and allowing development on lands with low reclamation potential. | |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13784-1 | MA# 1106, Alt B: "Coordinate with NRCS prior to approval of surface disturbance to analyze surface-disturbing activities... " (p. 2-9) Comment: The requirement to coordinate with NRCS prior to approval will undoubtedly create a bottleneck in all future project development and implementation. It is unlikely NRCS has the budget and staff to fulfill the BLM's expectations for full implementation. Alternative D is much broader and allows utilizing of existing soil data to incorporate and guide future decisions without needing to coordinate with NRCS for the unknown number of surface disturbing activities in the future. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13784-2 | MA#1107, Alt B: "Prohibit surface disturbing activities in areas where the soils have any of the following..." (p. 2-10) Comment: The DEIS fails to include any information regarding the number of acres the prohibition impacts. For example, "slopes greater than 25%," is completely unknown under this alternative and is not captured under Chapter 4. This further creates uncertainty for project proponents when only project level National Environmental Policy Act (NEPA) analysis is initiated and completed. We insist the BLM identify in the Final EIS and Record of Decision all areas and acres impacted by MA#1107. | Impacts on soil resources were analyzed in chapter 4.4. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13784-3 | MA#1109, Alt B: "Require photo point monitoring for all channel crossings and all surface disturbances greater than 1/2 acre." (p. 2-11) Comment: The DEIS fails to analyze the impacts on BLM staff or additional costs incurred by project proponents to monitor at the scale found under Alternative B. The expectation of MA#1109 is a significant impact in comparison to Alternative D, which is limited to a case-by-case basis. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. See SR-01 for Socioeconomic Resources. Section 4.22 discloses impacts to Socioeconomic Resources. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13784-4 | MA#1112, Alt B: "Require site-specific activity and implementation plans to reduce erosion." (p. 2-11) Comment: Again, the increased workload and financial burden to write these required plans is under analyzed under Alternative B, but also assumes you can enhance water quality for the areas beyond the site capability. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. Section 4.22 discloses impacts to Socioeconomic Resources. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13784-5 | * MA#1114, Alt B: "Prohibit pits that store liquids." (p. 2-12) Comment: This may be assumed to apply only to fluid mineral extraction, but WDA believes the inclusion of "liquids" has the potential for misapplication to any and all liquids, including small stock ponds storing water for livestock grazing, wildlife, or wild horses. We request BLM ensure stock water is excluded from this MA. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13784-44 | "Vegetation treatment actions would have similar impacts to soils as those discussed in Alternative A, but longer resting times for treated areas would likely provide greater protection to soils in these areas as vegetation and soil would have a longer timeframe to establish and stabilize." (p. 4-23) Comment: Alternative B assumes all vegetation treatment actions are alike and all have the same level of impact on soils. Mowing, spraying, prescribed fire, high intensity grazing are all treatment actions, with very different effects. Resting a treatment area for five growing seasons may in fact have a detrimental effect on the purpose and need of the project. BLM must incorporate vegetation objectives into the project and determine how best to reach those objectives. Resting for five growing seasons will not achieve this across all treatment actions. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116.<br>The statement "Requiring management plans to maintain, improve, or restore vegetation in all riparian areas within five years" refers to having a management plan. One of those methods could be resting an area, however, the DEIS does not prescribe that as a method. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13787-37 | MA #1107 PR-05 Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site-specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas as needed. Industry position: Not acceptable Reason: These should not be avoidance areas in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. Prohibit surface disturbing activities in areas where the soils have any of the following: * A wind erodibility index greater than 100 * Saline * Sodic * Saline-sodic * 2:1 clays * Sand dunes * Slopes greater than 25% * Slumps and creeps and/or rutting * Areas that are difficult to reclaim. Manage as: 1) no surface occupancy (NSO) for fluid minerals; 2) closed to mineral material sales/disposals; 3) closed to all solid mineral leasing. Industry position: Not acceptable Reason: There should be no closures to trona leasing in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. No similar action. Avoid surface disturbing activities in areas with limited reclamation potential, subject to adequate mitigation of impacts following BLM mitigation policies. The operator must submit an approved mitigation plan before proposed project will be approved. * Controlled Surface Use (CSU) for fluid minerals. Industry position: Not acceptable Reason: Hard to reclaim soils should not be an avoidance area in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. Soil handling and | A range of alternatives for MA#1107 exists. Impacts on soil resources were analyzed in chapter 4.4. |

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| | | reclamation plans for hard to reclaim soils will be reviewed and approved in the mine permit by WDEQ- LQD. Resource: Physical Resources (PR) - Water Resources 1300 - 1325) | |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-2 | PacifiCorp has concerns with the stipulations under Alternative B for MA #1107. The list of soil characteristics included in this alternative fails to account for reclamation practices where such soil types have been successfully reclaimed. For example, BCC has successfully achieved reclamation under some of the conditions listed under Alternative B of MA #1107. The effects of the proposed soil management actions in Alternative B are not fully analyzed by the BLM in the DEIS, are ambiguous, and lack mapping, acreage calculations, and supporting figures that represent what effect this proposed action would have on current or future surface activities. | Impacts on soil resources were analyzed in chapter 4.4. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-3 | Closing areas to all solid mineral leasing or surface disturbance based on a rigid set of indices that are not clearly mapped, instead of evaluating projects on a case-bycase basis is unnecessarily restrictive, and creates difficulty in planning or siting new projects. In addition, there is no exception under Alternative B of MA #1107 for existing facilities (such as power lines or access routes) that require some occasional surface disturbance for operations and maintenance. Surface disturbance has historically been handled through cooperation between BLM specialists and PacifiCorp with the implementation of appropriate Best Management Practices (BMPs) (as Alternatives A, C, and D allow) and Alternative B could prevent PacifiCorp from fulfilling its requirements to maintain and operate its current system because there is no reasonable exception process. In addition to maintaining current infrastructure, the linear characteristics of power lines require that at some point, any new or proposed line or corridor would cross sites with soil disturbance that would fall under the list of soil types in Alternative B of MA #1107. Siting future lines and corridors includes weighing priorities of numerous resources, of which soil quality is one of many considerations. In some areas, powerlines may span soil types; however, there is no possible way to site a future line that could avoid all vulnerable soils, and under Alternative B, there is no reasonable way to determine options and implement BMPs to minimize those impacts. Under Alternative B, it would not be possible to plan future lines or corridors through the RSFO, including transmission infrastructure necessary to meet national energy goals and bring new renewables onto the grid. Alternatives A, C, and D specifically address soil concerns by including avoidance as an option, while requiring a mitigation plan (Alternative D) or erosion control plans (Alternatives A and C) where appropriate, and PacifiCorp recommends that the BLM adopt Alternative A, C, or D for MA #1107. Reclamation and mitigation plans can and are successful in difficult-to-reclaim areas, and should be allowed to continue. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-4 | B. MA #1109 Alternative B of MA #1109 requires photo point monitoring on all disturbances greater than ½ acre and at all channel crossings. This would place an increased burden on agencies and companies with questionable benefits for resources in some areas. If the use of photo point monitoring is to be included under MA #1109, PacifiCorp recommends that the BLM adopt Alternative D, where monitoring is applied on a case-by-case basis, as this would focus monitoring in areas of most benefit to better utilize resources. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-5 | C. MA #1112 The requirement of site-specific activity and implementation plans for all areas under Alternative B of MA#1112 has significant potential to create an increased burden that may not be sustainable for companies or the BLM. Alternative D requires implementation on a case-by-case basis, making the stipulation more sustainable and can be used to focus plan development in areas of greatest benefit while limiting delays in planning projects. PacifiCorp recommends that the BLM adopt Alternative D for MA #1112. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-6 | D. MA #1114 Alternative B of MA #1114 prohibits some practices that have been in place and are currently permitted activities such as waste disposal practices conducted in accordance with the Permit to Mine under the Wyoming Department of Environmental Quality (DEQ) Land Quality Division. Alternative B of MA #1114 would require changes in waste management practices related to the remediation and disposal of petroleum contaminated soils and water from sumps and containment structures, which could conflict with current permits, including the DEQ Land Quality Division Permit to Mine as associated stipulations and regulatory compliance requirements. This may necessitate alterations to various permits to maintain compliance, create the need for costly alternatives to current practices, and it is uncertain if other agencies would allow changes in their permit requirements. PacifiCorp recommends that the BLM adopt Alternative D or A under MA #1114 to maintain consistency with current permits and regulations of other agencies. | Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-50 | As mentioned above, Alternative B also conflicts with regulatory requirements associated with thermal generation and coal mining. PacifiCorp co-owns and operates the Jim Bridger Power Plant located approximately seven miles north of Point of Rocks in Sweetwater County, Wyoming, which is within the boundaries of the area addressed by the RMP and DEIS. The continued operation of the plant may be negatively impacted by the selection of Alternative B. Increased restrictions outlined in proposed Alternative B addressing soil and geologic resources, water resources, and hydrogeologic investigations could pose difficulty for the plant in complying with requirements of the Environmental Protection Agency's coal combustion residual (CCR) requirements. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 802 - Physical Resources-Soil and Geologic | #13865-51 | Prohibitions on motorized travel and topsoil sale areas may inhibit the timely closure and reclamation of CCR impoundments or landfills and increase negative environmental impacts to public lands in the subject area. Raw materials for cover would potentially need to be sourced from areas outside the DEIS and trucked long distances | Environmental impacts to air quality were analyzed in chapter 4.3.4. The impacts of roads and their use are addressed throughout section 4.7. |

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| Resources (1100-1116) | | to the site. The increase in truck traffic on established roads will negatively impact wildlife and air quality in the subject area. | |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-55 | Installing new distribution lines underground or converting existing lines from overhead to underground may not be feasible in certain circumstances. In addition, burying power lines can result in greater ground disturbance during construction and repairs, longer outage periods for customers, increased cost, reduced reliability, and may not always be feasible from engineering and operations perspectives. Underground power lines would require continuous excavation through all habitat types. This is in contrast to overhead lines, which result in disturbance only at the structure locations and can span sensitive resources. Underground lines would also require excavation for repairs or maintenance, which would result in ground disturbance occurring temporally over the life of the line, not just during initial construction. Ground disturbance during construction, repairs, and maintenance of underground lines can result in large, permanent displacement of excavated soil and subsequent issues with re-establishing native vegetation and preventing the overgrowth of invasive species. Even in conditions where undergrounding is technologically feasible, there would be financial impacts to PacifiCorp and its customers, as undergrounding distribution lines can cost $600,000 to $1.1 million per mile, and possibly more, compared to $400,000 average for overhead distribution lines. Undergrounding transmission lines is typically not technologically feasible in remote areas, and would include all of the above impacts associated with undergrounding distribution, but at a much greater scale. Likewise, undergrounding transmission lines is cost prohibitive. Because of these considerations, PacifiCorp requests that the BLM remove undergrounding as a design feature that may be required, and instead allow utilities to determine if undergrounding lines is appropriate for their facilities and customers on a case-by-case basis. | See Appendix A.1.4 for BMPs. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13865-58 | o "Place infrastructure in already disturbed locations where the habitat has not been fully restored." As stated previously, power line routes are sited based on many factors, including avoiding sensitive resources and considering costs to utility customers. Consequently, utilities may not always be able to site line routes in areas with existing disturbance. PacifiCorp recommends that the BLM modify this stipulation to include "where feasible, practicable, and cost effective." | See Appendix A.1.4 for BMPs. Management actions for all four alternatives are identified for soil and geologic resources and can be found in the DEIS from management action 1100-1116. |
| 802 - Physical Resources-Soil and Geologic Resources (1100-1116) | #13925-44 | It is assumed BLM conducted an in-depth analysis of the impacts of such management action. Lacking such analysis, and subsequent mapping, Alternative B should be retracted and the narratives of Alternative A or D be adopted as feasible management action. Given all the other management actions regarding restrictions on surface disturbance plus this management action, there is a question of where surface disturbing activities would be allowed? Speculation would be less than 30% of the land mass of the planning unit would be available for surface disturbance (which is also not defined). This management action is an attempt to deny development of mineral resources allowed for in the leasing authority for those mineral activities. This management action would also apply to range improvements for wildlife and livestock. The unintended consequences for such management action are unlimited, and could prevent desired agency actions. The logical management action is to authorize surface disturbance with mitigation to prevent negative impacts. Alternative B if implemented would eliminate the need for professional staff review and design of mitigation and review would just be a check list action to deny or approve proposed occupation with surface disturbance. | Appendix V identifies areas that would have restrictions. Maps identifying those areas are presented in the Map Section for Chapter 2. Chapter 4.4.3: states that all areas would require site specific plans. |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-2 | Chapter 3.4.1 Surface Water. The Draft EIS (Page 3-4) states: "There are no Class 1 waters within the planning area." This statement is not accurate. Appendix A of the State of Wyoming, Department of Environmental Quality, Water Quality Standards (WDEQ, 2018) lists Class 1 (outstanding resource) waters within the state. Element (xi) of that listing is: "The main stem of the Sweetwater River above the mouth of Alkali Creek." Alkali Creek is located in Fremont County slightly upstream of Sweetwater Station. Therefore, all of the main stem of the Sweetwater River in the district is a Class 1 water. The Draft EIS should be corrected to include this information, and provide discussion on the management of the watershed containing this Class 1, outstanding water of the state. | See updated text in 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-3 | The state's water quality standards also contain important requirements relating to tributaries to a Class 1 water. Section 7 of WDEQ/WQD's Chapter 1 states: "Nonpoint source discharges of pollution to Class 1 waters or tributaries of Class 1 waters shall be controlled by application of best management practices." Major tributaries to the Sweetwater River within the Rock Springs District include Lander Creek, East Sweetwater River, Little Sweetwater River, Pine Creek, Mill Creek, Gold Creek, Oregon Slough, and Harris Slough. There are also numerous unnamed perennial, intermittent, and ephemeral tributaries. | See updated text in 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-4 | Chapter 3.4.1 Surface Water. This section of the document does not provide any discussion on the unique surface water features associated with the Killpecker Sand Dunes complex. The snowdrift/shallow groundwater/interdunal pond system is quite unique (Tronstad et. al, 2017) and deserves some additional discussion in this chapter. | See updated text in 3.4.1 |
| 803 - Physical Resources-Water | #4026-5 | Chapter 3.4.2 Groundwater. The Draft EIS is rather deficient on the discussion of springs and groundwater dependent ecosystems (GDEs) in the district. The significance of springs is well presented in the following statement from the Spring Stewardship Institute: Emerging in many forms, springs are said to be windows into the Earth. They are also some of the most sensitive indicators of global climate change. Despite the relatively small | See Chapter 1.4 Planning Criteria for a list of resources evaluated for analysis. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |

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| Resources (1300-1325) | | area of springs within the landscape, these ecosystems support more than 20 percent of the endangered species in the United States, as well as a high number of rare groundwater-dependent species. In addition, they hold great cultural significance for many indigenous cultures throughout the southwestern United States and the world. Thus, they play a vital role in the health and longevity of our society as well as our planet. BLM Technical Reference 1737-17, A Guide to Managing, Restoring, and Conserving Springs in the Western United States, (Soda et. al, 2001) also recognizes the importance of springs as habitat for a disproportionally high number of wildlife and plant species as well as being vital to a number of unique plant and animal communities in the arid Western United States. These small, unique areas have also experienced significant impact at the hand of man. In this respect, Soda, et. al state: Unfortunately, as springs have been developed to enhance water availability for livestock, game animals …, and humans, the associated riparian and aquatic habitats frequently have been altered due to trampling, diversion, channelization, and impoundment. Springs have also been affected by excessive ground-water use, as well as by the invasion and establishment of nonnative plants and animals. As a result, the current physical and biological characteristics of many springs bear little resemblance to their historical, unaltered conditions. … Evidence showing the biological importance of springs continues to increase. … However, these small wetlands have received limited management priority. Under spring resource management goals, BLM Technical Reference 1737-17 goes on to state: The overall goal of spring management is to maintain the ecological structure and function of the spring habitat by stabilizing discharge and spring brook morphology. Springs should not be subjected to impacts that change functional characteristics of aquatic and riparian biota. The springs located within the high-elevation, cold desert region of the Rock Springs District possess all the attributes and impacts described above. In addition, springs in the Red Desert have also been impacted through trans-aquifer communication resulting from improperly abandoned drill holes. I feel the BLM needs to acknowledge the importance of springs and associated GDEs within this management document. The discussion of the various management alternatives also needs to look at this resource in the analyses | |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-12 | Chapter 4.5.1 Water Resources, Assumptions. Because the analysis area does contain a Class 1, outstanding resource water, I feel the BLM should add an additional assumption in this section. This assumption might be worded as: "Management actions within the Sweetwater River watershed, including tributaries, will involve the full use of Best Management Practices to prevent nonpoint source pollution degradation to this Class 1, outstanding resource water." | The listed assumptions were used in the EIS analysis. See Chapter 1.4 Planning Criteria for a list of resources evaluated for analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-13 | Chapter 4.5.1 Water Resources, Assumptions. I recommend the BLM also include an additional assumption concerning springs in this chapter of the document. This wording could be: "Springs constitute a vital water source in the arid, high desert region of Wyoming. These springs provide important habitat for many species of wildlife and plants. Impacts resulting from spring development, unrestricted grazing, and groundwater use can alter the physical and biological characteristics so that many springs bear little resemblance to their historical, unaltered conditions." | The listed assumptions were used in the EIS analysis. See Chapter 1.4 Planning Criteria for a list of resources evaluated for analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-14 | Chapter 4.5.3 Water Resources, Alternative B. Additional wording should be added on how this alternative protects the Class 1 status of the Sweetwater River. | See appropriate updates to Chapter 4 Alt B analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #4026-15 | Chapter 4.5.3 Water Resources, Alternative B. I recommend additional wording be added on how this alternative best protects springs and their associated groundwater dependent ecosystems (GDEs). As no detailed spring assessment inventory exists for the district, a cursory review of U.S.G.S. topographic maps suggests a large percentage of the mapped springs in the Rock Springs District occur in the Jack Morrow Hills, Pine Mountain, and Little Mountain areas (note: these mapped springs likely represent only a small percentage of the actual total number of springs and seeps in the district). | See Chapter 1.4 Planning Criteria for a list of resources evaluated for analysis. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #9853-3 | Water Resources (Pages 2-13 through 2-22) While SVP supports the requirements to maintain healthy water resources, issues concerning water resources are largely irrelevant from the paleontological standpoint, except for alternatives that would have scenarios completely prohibiting surface disturbance activities. Alternative B of MA#s 1302, 1313, and 1325 (Pages 2-14, 2-16, and 2-22) are such examples SVP does not prefer. Alternative A for MA# 1302, Alternative C or D for MA# 1313, and Alternative D for MA# 1325 (= equivalent to Alternative D of MA# 1320: Page 2-20) would be more sensible from the paleontological standpoint (and thus preferred here) by providing flexibility (on a case-by-case basis or 'avoid' but not necessarily prohibit) to conduct carefully managed surface disturbing activities, such as paleontological surveys, mitigations, and excavations. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | A range of alternatives has been analyzed for management of Water Resources in Chapter 2.2.6 management actions 1300-1325. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-35 | 1301 All alternatives are the same Areas may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of watershed resources. The BLM would not use powers of condemnation to acquire lands (Appendix K). The task force expressed support for this statement as it emphasizes willing buyer/willing seller and restricts the use of condemnation. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Appendix K Land Tenure Adjustment Criteria for discussion of process for acquisition, retention and disposal of lands. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13210-36 | 1302 Alternative D Design land uses and surface disturbing activities to reduce erosion and to maintain or improve water quality. Direct management in wetland and riparian areas toward meeting or making progress toward Wyoming Land Health Standards as a minimum. Alternative D is preferred because it broadly references the Wyoming Land Health Standards. Alternatives A and B do not reference the Wyoming Land Health Standards, and Alternative C includes a narrow refence. Alterative D is preferred because of its broad refence/ inclusion of the Wyoming Land Health Standards. | A range of alternatives has been analyzed for land uses and Surface disturbing activities and Water Resources in Chapter 2.2.6 management actions 1302. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-37 | 1303 Alternative A Management in the planning area would emphasize: * Reduction of sediment, phosphate, and salinity load in drainages where possible. Measures listed in Appendix A would be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations would also be applied, as necessary (Wyoming 1989). * Maintaining and improving drainage channel stability. * Restoring damaged wetland areas. * Exclosures would be designed to allow ample water for livestock and allow minimum impediments to big game migration. Alternative A specifically references the Wyoming Water Quality Rules and Regulations ensuring consistency with Wyoming regulations and maintenance of primacy over water quality. Alternative A also requires that exclosures be designed for "ample water flow for livestock and allow minimum impediments to big game" language supported by the task force. | A range of alternatives has been analyzed for management of Water Resources in Chapter 2.2.6 management actions 1303. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-38 | 1305 Alternative D Participate with federal, state, and local government agencies, affected landowners and the Colorado River Salinity Control Forum when developing and implementing salinity control measures, water quality improvement plans, salinity control plans, and TMDLs. Alterative D is preferred because during discussions the BLM indicated this is their current practice across the field office. | A range of alternatives has been analyzed for participation with other agencies on Water Resources in Chapter 2.2.6 management actions 1305. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-39 | 1308 Alternative D No similar action Alternative D ensures consistency across jurisdictions by not adding additional BLM requirements on top of what the DEQ already requires. | A range of alternatives has been analyzed for quantifying sediment, salinity and other nutrients in Water Resources in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-40 | 1309 Alternative D Prepare, on a case-by-case basis, site-specific activity and implementation plans to reduce erosion and sediment yield, promote ground cover, and enhance water quality. Activity and implementation plans could include general or specific watershed management terms and BMPs and incorporate sediment reduction, water retention, and water quality improvement objectives. Consider all existing locally developed watershed plans as new activity and implementation plans are developed. Alternative D is preferred because it provides for evaluations on a case-by-case basis whereas the other alternatives do not. It was noted during discussions that industry is already required to do these things in their mine permits and pollution prevention plans. | A range of alternatives has been analyzed for activity and implementation plans in Water Resources in Chapter 2.2.6 management actions 1309. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-41 | Action Alternative agreed on Management Action Language Justification 1317 Alternative D with amended/ additional text Manage activities in aquifer recharge areas to protect groundwater quality and quantity to ensure continued function. Manage activities in aquifer recharge areas to maintain, at a minimum, recharge volume and groundwater quality by limiting road density, chemical use and storage, and surface occupancy to maintain a healthy recharge area. * CSU for fluid minerals. Apply the above actions to identified and mapped recharge areas. To recognize the primacy of the State of Wyoming on water quality and quantity, the task force requests the following language to Alternative D: "in coordination with the appropriate state agencies." | A range of alternatives has been analyzed for management of aquifer recharge areas in Chapter 2.2.6 management actions 1317. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for Consultation and Coordination activities. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-42 | 1320 Alternative B No similar action The management action of "no similar action" is preferred over the language in Alternative D out of deference to State of Wyoming primacy over water quality and quantity regulation. Further, it is unclear the impact Alternative D would have on existing facilities and on valid existing rights. | See Chapter 1.4 Planning Criteria for discussion of valid and existing rights. A range of alternatives has been analyzed for water resources in Chapter 2.2.6 management action 1320. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-43 | 1322 Alternative A Legal protection of those water uses, both consumptive and nonconsumptive (including instream uses), that are necessary for the accomplishment of BLM programs would be obtained, so that the beneficial uses may be continued or made possible in the future. Alternative A is preferred as it does not discuss federally reserved water rights - while Alternative D does. Concern was expressed that Alternative D directs the BLM to acquire state water rights. | A range of alternatives has been analyzed for water use and water rights in Chapter 2.2.6 management actions 1322. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-44 | 1323 Alternative C No similar action Alterative C preferred as Alternative B and D would require hydrologic investigations across the entire field office (currently only required in the JMH planning area). | A range of alternatives has been analyzed for hydrogeologic investigation in Chapter 2.2.6 management actions 1323. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water | #13210-45 | 1324 Alternative A Herbicide loading sites would be prohibited within 500 feet of water sources, floodplains, riparian areas, and Special Status plant locations and would be used in accordance with the guidelines in | A range of alternatives has been analyzed for pesticide and herbicide loading, maintenance and refueling and water resources in Chapter 2.2.6 management actions 1324. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Resources (1300-1325) | | Appendix A. Alternative A is preferred as it adequately allows power and utility companies to effectively conduct their work in remote areas of the field office. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13210-46 | 1325 Alternative A No similar action Alterative A is preferred as Alternative B would make it difficult for power and utility companies to put in a line underground when necessary. | A range of alternatives has been analyzed for shallow unconfined reservoirs in Chapter 2.2.6 management actions 1325. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13542-23 | MA#1305. Alternative B. 2-15 For the trona facilities, the Wyoming Department of Environmental Quality Land Quality Division and Water Quality Divisions already review and regulate salinity control measures, water quality, and total maximum daily loads to ensure compliance with Colorado River Salinity Forum. Will a memorandum of understanding be developed between the BLM and the state agencies to ensure that facilities are not held to redundant and conflicting requirements regarding salinity? Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for consultation and coordination with other agencies. A range of alternatives has been analyzed for participation with other agencies on Water Resources in Chapter 2.2.6 management actions 1305. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13542-24 | MA#1308. Alternative B. 2-15 What is the BLM's example of the best available modeling to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies from all surface disturbing activities? More details should be provided for facilities to better understand potential impacts to their businesses from this requirement. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | A range of alternatives has been analyzed for modeling in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13542-25 | MA#1309. Alternative B. 2-15 How does the BLM propose that water quality would be enhanced by this management action? The majority of the RMP area is a high desert ecosystem which often struggles to maintain ground cover. More detailed information should be released on this management action so facilities can foresee potential impacts to the business. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | A range of alternatives has been analyzed for activity and implementation plans in Water Resources in Chapter 2.2.6 management actions 1309. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13542-26 | MA#1313. Alternative B. 2-16 Under Alternative B, by closing these areas to mineral material sales and disposals, the BLM would significantly limit potential areas for trona mines to place tailings back underground in previously mined out areas. Wyoming Department of Environmental Quality Land Quality Division Noncoal Chapter 3 Section 2(h)(ii) states that the State of Wyoming prefers mines to place tailings underground. By closing off significant portions of lands that could be used for tailings storage, the BLM's RMP is conflicting with the preference of DEQ LQD. Please consider an amendment to the alternative that allows for compliance with state law. | See Chapter 1.4 Planning Criteria for compliance with applicable laws, and valid and existing rights. See also Glossary for a definition of 'mineral material', which does not apply to leasable minerals. A range of alternatives has been analyzed for mineral material sales/disposal in Chapter 2.2.6 management action 1313. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13542-27 | MA#1313. Alternative D. 2-16 Define intermittent channels and ephemeral drainages in relation to water quality. Does water have to be naturally occurring to consider a geographical feature an intermittent channel or ephemeral drainage? Please analyze in detail and disclose to the public the scientific basis for the proposed measures. | See Glossary for a definition 'ephemeral channels'. A range of alternatives has been analyzed for surface disturbing activities and Water Resources in Chapter 2.2.6 management actions 1313. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13542-73 | Literature Cited. Wyoming Department of Environmental Quality (DEQ). 2008. LC-16 This report issued by the State of Wyoming is from 15 years ago. The most recent available report available on DEQ WQD's website was published on May 4, 2020. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See Executive Summary, Chapter 1.4 Planning Criteria, Chapter 4.2.2 Availability of Data and Incomplete Information for compliance with applicable laws, and adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13577-1 | Alternative B in Management Action #1313 would prohibit surface disturbing activities and new permanent facilities within 1,320 feet of 100-year flood plains and other aquatic resources. This prohibition is unacceptable because 1,320 feet is arbitrary and is based on inaccurate use of topography. | A range of alternatives has been analyzed for mineral material sales/disposal in Chapter 2.2.6 management action 1313. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-12 | WDEQ's primacy is further ignored in the proposed Management Actions 1303 through 1309. Those proposals ignore WDEQ primacy and attempts to acquire the authority already vested to WDEQ through primacy agreements with other Federal authorities. Because the actions described in Management Actions 1303 through 1309 fall under the authority of WDEQ, BLM should defer to WDEQ's primacy status and expertise; acknowledging that the BLM's role is to coordinate with WDEQ and provide information for consideration in these areas. Ultimately, the Draft RMP/EIS indicate that BLM intends to assert authority over other federal agencies, such as the EPA, by ignoring the authority EPA has granted to WDEQ. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-14 | Management Actions # 1313 through 1315 similarly do not provide the technical basis for determining that the strict prohibition in Alternative B is justified. WDEQ has the authority to protect all Waters of the State, which extends to floodplains, wetlands, riparian areas, perennial streams, and ephemeral drainages. This authority includes permitting surface disturbing activities and new permanent facilities through WDEQ permitting and 401 Certifications to ensure protections to waters of the state. BLM should recognize WDEQ's existing authority and | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. A range of alternatives has been analyzed for floodplains, wetlands, riparian and perennial streams in Chapter 2.2.6 management actions 1313 - 15. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | regulations are sufficient and consult WDEQ to ensure consistency with Wyoming Water Quality Rules, particularly Chapter 2, Permit Regulations for Discharges to Wyoming Surface Waters. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-22 | Water Quality/Water Resources Table 1-2 in the Draft RMP/EIS primarily addresses Land Use Plans considered during the development process. Draft EIS, Ch. 1, p. 1-6. However, to ensure consistency with Wyoming Water Quality Rules and current water quality management efforts, revisions to the Draft RMP/EIS should include consideration of the plans/reports listed below. The plans/reports that should be reevaluated in Table 1-2 Related Local, State, and Federal Management Plans include: - The 2013 Nonpoint Source Management Plan and any subsequent versions. - The 2020 Integrated 305(b) and 303 (d) Report and any subsequent revisions. - Currently approved Total Maximum Daily Loads (TMDLs): - Bitter Creek TMDL for E.coli. - Killpecker Creek TMDL for E.coli. - Approved new or updated Watershed Based Plans. - Little Sandy River - Bitter Creek - Killpecker Creek | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-50 | General####Throughout the draft RMP, water quality and water quantity are combined in the analysis. In addition, BLM's discussion of water quality and water quantity does not include the critical need to coordinate with the applicable regulatory agencies. To address these issues, the RMP should 1) separate water quality and water quantity; 2) describe the applicable regulations and; 3) describe that the BLM will coordinate with WDEQ/WQD and the Wyoming State Engineer's Office (SEO) regarding water quality and quantity, respectively. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-51 | General####The RMP must identify that the WDEQ has authority to implement sections of the Clean Water Act and Safe Drinking Water Act in the State of Wyoming. The RMP does not currently acknowledge the Clean Water Act and Safe Drinking Water Act programs that the WDEQ has authority to implement in Wyoming. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-52 | General###"Beneficial uses"#The RMP should use the term "designated uses" to be consistent with the Wyoming Water Quality Rules, Chapter 1, Wyoming Surface Water Quality Standards. "Beneficial uses" is used by the Wyoming State Engineer's office and relates to permitting uses of water of the state, which is separate from WDEQ/WQD's authority. | See revised text in Chapter 4.5.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-53 | General###Water Recharge Area and Aquifer Recharge Area.#The RMP should clarify "water recharge area" and/or "aquifer recharge area", as these terms are currently used interchangeably throughout the document. If these terms are describing the same groundwater resource, the BLM should pick one and ensure the language is consistent throughout the document. If these terms are describing different groundwater resources, the terms should be defined and used consistently throughout. | Text has been updated as appropriate. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-54 | Glossary##General#Revise definitions and clarify terms that may have multiple meanings.#The RMP should only use defined terms where the context aligns with the definition. For example, the terms "discharge" and "runoff" are defined in the glossary as they relate to water quantity but are used when discussing both water quality and water quantity. For the glossary to be useful, both contexts should be addressed in the definition. Alternatively, the definitions should be removed to eliminate potential confusion. | The definitions used in the Glossary relate to BLM's analysis and interpretation of the proposed actions in the EIS. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-55 | Glossary###Addition#The RMP Glossary should describe SDWA Underground Injection Control (UIC) well classes, as outlined in Wyoming Water Quality Rules, Chapters 24 (Class VI Injection Wells and Facilities Underground Injection Control Program) and Chapter 27 (Underground Injection Control Program Class I and V Wells). | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-56 | Ch. 1#1-4#1.4#Wyoming Department of Environmental Quality Authority.#The RMP must identify the Wyoming Department of Environmental Quality's primacy and authority to implement sections of the Clean Water Act and Safe Drinking Water Act. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-61 | Ch. 2#2-13#General#Water Resources Table. Spills.#The water resources table should address the protection of surface waters from chemical spills and requirements for spill reporting consistent with Wyoming Water Quality Rules, Chapter 4. Table 2.11 of the 2013 Lander RMP provides an example of how spills can be incorporated. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-62 | Ch. 2#2-16#1311#Formatting.#To improve readability, the RMP should 1) combine section 1312 with Section 1311; and 2) indicate that the management action is consistent across all alternatives. | A range of alternatives has been analyzed for management of the dunal ponds in Chapter 2.2.6 management actions 1311 and 1312. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13624-63 | Ch. 2#2-16#1311#Addition of 404 certification under the Clean Water Act.#This RMP management action should include compliance with Section 401 of the Clean Water Act. The WDEQ issues Section 401 certifications for USACE404 permits. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-64 | Ch. 2#2-13#PR-06#"Improve water quality and quantity where practical."#The proposed objective should be combined with PR- 08 and a separate water quantity objective developed. | The objectives presented are BLM's objectives for management in the planning area. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-65 | Ch. 2#2-13#PR-07#"Protect and improve surface and groundwater quality and quantity through appropriate measures (e.g., predictive modeling, monitoring, and protection of surface waters and known water recharge areas) during BLM activities and permitted actions over the life of the plan."#This statement does not indicate that the WDEQ/WQD and SEO have regulatory authority for water quality and water quantity, respectively, nor that BLM will coordinate with these agencies. Moreover, combining water quality and water quantity creates confusion regarding which activities are intended to protect water quality versus water quantity. To address these issues, the RMP should 1) address water quality and water quantity separately; 2) describe the regulatory framework for water quantity and water quality; and 3) describe that the BLM will coordinate with WDEQ/WQD and the Wyoming State Engineer's Office (SEO) to protect and improve surface and groundwater quality and quantity, respectively. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-66 | Ch. 2#2-13#PR-08#"Take appropriate actions within State of Wyoming established timeframes to control all causes of impairment and prevent additional listings of impaired waterbodies resulting from BLM actions and permitted activities on watersheds."#This statement is inaccurate, as WDEQ/WQD does not establish "timeframes to control all causes of impairment". To address this issue, WDEQ/WQD recommends replacing "Take appropriate actions within State of Wyoming established timeframes" with "In coordination with WDEQ/WQD, take appropriate actions…" | The objectives presented are BLM's objectives for management in the planning area. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-67 | Ch. 2#2-13#PR-12#"Rehabilitate, maintain, acquire, develop, or reclaim water supply sources to meet other resource goals and objectives."#It is unclear if the proposed statement includes water recharge areas and if coordination with regulatory agencies will be conducted. If managed aquifer recharge for recharge or storage is supposed to be associated with this objective, collaboration with the WDEQ/WQD UIC program and SEO will be required. For further clarification, contact the WDEQ/WQD UIC Program. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-68 | Ch. 2#2-13##Add in the Goal section.#The water resources table should address the protection of Class 1 waters as an objective to meeting the overall goal, since the Sweetwater River, a Class 1 surface water, is within the planning area. As outlined in the Wyoming Water Quality Rules, Chapter 1, Wyoming Surface Water Quality Standards, Class 1 waters are considered "Outstanding Surface Waters of the State" where the water quality at the time of designation must be maintained and no new point sources other than dams may discharge or increase their quantity of pollution discharged. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-69 | Ch.2#2-13#1300#Across all alternatives. "Authorize new activities resulting in the surface discharge of produced water only where compatible with other resource objectives and in consultation with stakeholders."#It is not clear why BLM specifically identified surface discharge of produced water as a means to guide authorization of activities within the RMP, particularly given that BLM must ensure that all activities are compatible with resource objectives. Moreover, although BLM has authority to manage BLM resources and activities on BLM lands, BLM did not coordinate with WDEQ/WQD in identifying this management action, despite the fact that WDEQ/WQD has authority under the Wyoming Environmental Quality Act, Wyoming Water Quality Rules, the Clean Water Act, and its implementing regulations to permit surface discharges. To address this issue, BLM should coordinate with WDEQ/WQD to identify management actions that will ensure protection of surface water quality. If BLM retains this as a management action, BLM should provide justification as to how this action meets management objectives. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-70 | Ch.2#2-14#1302#Across all alternatives.#All Alternatives should recognize that land-disturbing activities near wetlands must comply with Sections 401 and 404 of the Clean Water Act for Waters of the United States (WOTUS) and the WYPDES Wetland Mitigation Permit requirement for the disturbances of more than 1 acre for Non-WOTUS wetlands. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-71 | Ch. 2#2.14#1303#Alternative A: "Reduction of sediment, phosphate, and salinity load in drainages where possible. Measures listed in Appendix A would be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations would also be applied, as necessary (Wyoming 1989).#The proposed statement does not adequately represent other water quality criteria within the Wyoming Surface Water Quality Standards, nor provide justification for why sediment, phosphate, and salinity load are the only pollutants of interest. The Wyoming 1989 reference is also inaccurate and not included in the list of citations. It is alarming that BLM referenced the 1989 version of Wyoming Water Quality Rules, Chapter 1, which establishes water quality | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. See updated reference in Literature cited. |

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| | | standards for surface waters of the state. Chapter 1 been updated numerous times since 1989, most recently in 2018. It is difficult to understand why such an inaccurate reference was provided if BLM had done its due diligence researching information with the RMP and coordinating with cooperating agencies. The WDEQ/WQD also emphasizes that this Chapter describes rules, not guidelines. To address these issues, the RMP should: 1) Cite the 2018 version of Wyoming Water Quality Rules, Chapter 1, Wyoming Water Quality Standards, as the 2018 version is the most recent version; and 2) Either address management of all pollutants to ensure compliance with Wyoming's Surface Water Quality Standards; or 3) Provide rationale as to why sediment, phosphate, and salinity are the pollutants of interest. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-72 | Ch. 2#2-14#1303#Alternative B, C, and D.#It is inappropriate for BLM to remove the application of Wyoming Water Quality Rules in Alternatives B, C, and D. To address this issue, all alternatives should indicate compliance with Wyoming Water Quality Rules. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-73 | Ch. 2#2-14#1304#Formatting.#Alternative A is the same across all alternatives and should be relocated to the top of the table where management actions across all alternatives are listed. | Location is appropriate for BLM's needs. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-74 | Ch. 2#2-14#1304 1306#"Activity and implementation plans would be designed with measures to reduce phosphate loading to Fontenelle and Flaming Gorge Reservoirs and the Green River." "The BLM would participate with federal and local government agencies to develop and implement phosphate reduction plans in tributaries to Fontenelle Reservoir and Flaming Gorge Reservoir."#The RMP does not provide a justification as to why addressing phosphate loading is a priority, nor specify phosphate sources within the planning area. Section 3.15.6 simply states "there is no potential for developing phosphate in the planning area." To address these issues, the RMP should 1) describe the phosphate sources within the planning area; 2) clarify why phosphate loading is an issue, despite the lack of phosphate development; and 3) specify why phosphate loading is a priority. | Alternative A is the existing management from the 1997 plan. See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-75 | Ch. 2##1304 1306#Fontenelle Reservoir#Fontenelle Reservoir only borders the Rock Springs Planning area and the majority of the reservoir falls within the Kemmerer Field Office and Pinedale Field Office Planning Areas. The RMP should address the importance of including Fontenelle and describe any collaboration between the Kemmerer and/or Pinedale Field Offices to ensure management efforts are consistent. | Alternative A is the existing management from the 1997 plan. See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-76 | Ch. 2#2-15#1309#Across all alternatives.#The RMP should describe that all plans for BLM authorized activities and actions that include reclamation projects that may impact water quality must follow WYPDES Stormwater Permitting requirements to protect surface waters of the state. These requirements can be found in Wyoming Water Quality Rules, Chapter 2, Permit Regulations for Discharges to Wyoming Surface Waters. | A range of alternatives has been proposed for MA 1309. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-77 | Ch. 2#2-16#1311 1312#Across all alternatives. Information to add.#Any alternative that may result in the discharge of point or nonpoint source pollution to wetlands within the state of Wyoming should describe that 1) Wyoming Water Quality Rules Chapter 1, Wyoming Surface Water Quality Standards, establish protections for wetlands and 2) protections from point source discharges of pollution are handled through either the Clean Water Act Section 404 permitting and 401 certification process for Waters of the United States or Water Quality Rules Chapter 2, Section 7 for wetlands not considered Waters of the United States. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-78 | Ch. 2##1317#Alternatives A-D "Aquifer recharge areas would be managed to protect groundwater quality and to ensure continued ability for recharging aquifers."#The RMP should indicate that aquifer recharge area management will ensure groundwater quality is protected consistent with Wyoming Water Quality Rules. Coordination with the SEO should also be noted, as the SEO has regulatory authority over water quantity in Wyoming. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-79 | Ch. 2##1319#Mentioned in Alternatives A-D "Design activities within the water recharge area for the Town of Superior water supply to protect groundwater quality."#The RMP does not provide a rationale as to why the town of Superior recharge area is a high priority, does not commit to coordination with WDEQ/WQD, SEO, or the Wyoming Geological Survey (WGS), and does not recognize the regulatory authority of WDEQ/WQD or the SEO. To address these issues, the RMP should 1) identify the significance of this recharge area within Chapter 3, Affected Environment; 2) describe coordination with WDEQ/WQD, SEO, and the WGS to prioritize recharge areas; and 3) indicate WDEQ/WQD's authority to ensure protection of groundwater quality consistent with Wyoming Water Quality Rules, Chapter 8, Quality Standards for Wyoming Groundwaters. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water | #13624-80 | Ch. 2#2-20#1320#Alternative D ""High" and "Moderately High" sensitivity aquifer systems identified through the use of the Wyoming Groundwater Vulnerability Assessment Handbook or similar document as updated over time."#It is unclear if the BLM is proposing to review and reclassify sensitive aquifers, or if collaboration with | Please read the proposed language in Alt D MA 1320, which does not indicate that BLM will reclassify aquifer designations. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |

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| Resources (1300-1325) | | cooperating agencies such as the WDEQ/WQD, SEO, or WGS will be done to ensure consistency of groundwater sensitivity analyses. For instance, WDEQ/WQD has developed sensitivity determinations that should be consulted in conjunction with other documentation from other cooperating agencies. The RMP should be consistent with agencies that have authority over groundwater in the state. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-81 | Ch.2#2-20#1321#Cooperation with the state of Wyoming on the development of the state 208 water quality plan.#An MOU for cooperation with BLM on the state 208 plan was signed on March 13, 1981. Since the completion of the state 208 water quality plan, WDEQ/WQD has not proposed and is not planning to make changes to the document. Thus, it is recommended that this section be removed or revised such that it does not imply that WDEQ/WQD is currently developing a new 208 plan. WDEQ/WQD would also like to note that other BLM field offices in the state do not address the 208-plan development within their RMPs. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. A range of alternatives has been analyzed for water quality plans in Chapter 2.2.6 management action 1321. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-82 | Ch. 2#2-20#1325#Alternative B "Prohibit surface occupancy and surface disturbing activities in areas of shallow unconfined aquifers."#It is not clear why BLM identified shallow unconfined aquifers as a means to guide authorization of activities within the RMP, particularly given that BLM must ensure that all activities are compatible with resource objectives. Moreover, although BLM has authority to manage BLM resources and activities on BLM lands, BLM did not coordinate with WDEQ/WQD in identifying this management action, despite the fact that WDEQ/WQD has authority under the Wyoming Environmental Quality Act, Wyoming Water Quality Rules, and the Safe Drinking Water Act to ensure the protection of groundwater and underground drinking water supplies. To address these issues, BLM should coordinate with WDEQ/WQD, SEO, and WGS to identify aquifers and develop a project plan to ensure aquifers are protected and groundwater quality standards are met. If BLM retains this as a management action, BLM should provide justification as to how this action meets management objectives. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. A range of alternatives has been analyzed for shallow unconfined aquifers in Chapter 2.2.6 management action 1325. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-83 | Ch. 2#2-22#1324##This is also addressed in the Invasive Species and Pest section. To avoid redundancy, this information should be removed from the water resources table and retained in the Invasive Species and Pests table. | A range of alternatives has been analyzed for pesticide and herbicide loading, maintenance and refueling and water resources in Chapter 2.2.6 management actions 1324, and for invasive species and pest management in action 4212. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-85 | Ch.3##General##This section should be reformatted and combined with bullet 4 in Section 4.5.1 to ensure WDEQ/WQD's authority is addressed prior to discussing the water classification system. | The document layout and formatting is sufficient for BLM needs. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-86 | Ch. 3#3-4#3.4.1#Paragraph 1. "The portion of the planning area that is drained by the Green/Colorado River (Region 14, Basin 1404401) is subject to the Colorado River Compact."#The Colorado River Salinity Control Act of 1974 should be added to the statement to ensure all applicable rules and regulations are addressed in the RMP. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-87 | Ch. 3#3-4#3.4.1#Paragraph 1. "... the Sweetwater River is located within the Missouri River Basin and is subject to all applicable rules and agreements for that watershed."#To be consistent, the RMP should describe the specific rules and agreements for the Sweetwater River and/or Missouri River Basin, similar to the Green/Colorado River. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-88 | Ch. 3#3-4#3.4.1#Paragraph 2. "Major reservoirs in the area include Eden Valley Reservoir, Big Sandy Reservoir, Fontenelle Reservoir, and Flaming Gorge Reservoir."#As previously noted, the RMP should specify the importance of incorporating Fontenelle Reservoir into the RMP, since the planning area only borders the reservoir. In addition, if the RSFO includes Fontenelle, the reservoir should be added to the water resources map to allow reviewers to see where the water is located. | See Chapter 1.4 for a description of the planning area and the planning criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-89 | Ch. 3#3-4#3.4.1#Paragraph 3. "Waters in Wyoming are classified for water quality regulation according to beneficial uses by the Wyoming Department of Environmental Quality (DEQ)."#The proposed statement is inaccurate as "beneficial uses" are not used to classify surface waters. The RMP should say "The Wyoming Department of Environmental Quality/ Water Quality Division develops surface water quality standards, including designated uses, water quality criteria, and antidegradation provisions, to protect the quality of surface waters of the state." | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-90 | Ch. 3#3-4#3.4.1#Paragraph 3. "Nonpoint sources of pollution in Class 1 waters are controlled by the implementation of appropriate best management practices (BMP)."#Although this statement is correct, the RMP could be interpreted to imply that BMPs are only used to control non-point source pollution for Class 1 waters. To address this issue, the RMP should specify that nonpoint sources of pollution will be identified and best management practices (BMPs) to address nonpoint sources implemented to ensure compliance with surface water quality standards. | Text is sufficient for BLM analysis needs. See Chapter 1.4 for the planning criteria. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13624-91 | Ch.3#3-4#3.4.1#Paragraph 3. "Class 1, 2, and 3 waters are those with specific water quality standards that must be maintained."#The proposed statement is inaccurate as all Wyoming surface waters of the state have water quality standards and must be managed to ensure those standards are met. | See updated text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-92 | Ch. 3#3-4#3.4.1#Paragraph 3. "There are no Class 1 waters within the planning areas."#The proposed statement is inaccurate as the Sweetwater River, near the northern boundary of the planning area, is a Class 1 Water. | See updated text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-93 | Ch. 3#3-4#3.4.1#Paragraph 3. "There are 42 miles of Class 2 water on the Big Sandy River between the confluence with the Green River and the confluence of the Little Sandy River near Farson."#The proposed information is inaccurate. It appears that the RSFO used the Integrated Report rather than the Wyoming Surface Water Classification List to identify the water resources and applicable surface water quality standards in this area. However, the Integrated Report only identifies waters that have been assessed. There are other waters within the planning area, including Class 2 waters such as the Green River (Class 2AB). As such, the RSFO should include a list of all Class 2 waters located in the planning area. | See updated text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-94 | Ch. 3#3-4#3.4.1#Paragraph 4. Impaired waters.#The list of impaired waters is inaccurate, as WDEQ's 2010 Integrated Report was utilized for identifying impaired waters. The RMP should be updated to include the following waters, as described in WDEQ's Wyoming's 2020 Integrated 305(b) and 3030(d) Report: ? Little Sandy River impaired for sediment. Listed in 2012. ? Lander Creek impaired for E. coli. Listed in 2020. This section could be addressed in a table that lists the impairments within the planning area. For an example, refer to Table 3.8 in the 2013 Lander RMP. Again, BLM's inaccurate references to some of WDEQ/WQD's key sources of information is alarming. | See updated text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-95 | Ch. 3#3-4#3.4.1#Paragraph 4. "Killpecker Creek is also a source of high chlorides in the system but is not listed for chlorides due to naturally high background levels of chlorides originating from the soils."#The proposed statement is inaccurate. Killpecker Creek (Class 3B) is not included in Wyoming's 303(d) listed for chlorides because the numeric chloride criteria is not applicable to Class 3B waters, as outlined in the Wyoming Water Quality Rules, Chapter 1, Wyoming Water Quality Standards. In addition, WDEQ/WQD has not determined whether there are naturally high background levels of chlorides that originate from the soils in Killpecker Creek. As such, WQD recommends removing the statement regarding Killpecker Creek. Alternatively, BLM could simply describe that chloride concentrations are elevated in Killpecker Creek. | See revised text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-96 | Ch. 3#3-5#3.4.2#Entire Section.#Overall, there is not enough information provided on groundwater resources within the planning area to provide substantive comments. The RMP revisions should address groundwater deficiencies including regulatory authorities and potential permits to be obtained, and should provide justification of the classification for each water recharge area. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-97 | Ch. 3##3.4.2#Paragraph 2 "Published information suggests that the following areas can be classified as recharge areas"#The RMP does not elaborate on the "published information" alluded to in the proposed statement; therefore, the WDEQ/WQD cannot determine if the published information is based on science and quality-controlled data. The RMP should provide sufficient justification for water recharge area classifications, including the "published information", geology in the area, information from cooperating agencies, and any literature used when classifying the recharge areas. RSFO should be collaborating with the WDEQ/WQD, SEO, and WGS to ensure recharge areas are classified accurately and consistently. RSFO should also be aware that "managed aquifer recharge" is a term used in the UIC program for the recharge or storage of groundwater. If RSFO's intent is to manage the recharge areas by recharging or storing groundwater, coordination with the WDEQ/WQD UIC program and SEO will be required. For more information the RSFO should coordinate with the WDEQ/WQD. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-98 | Ch.3#3-5#3.5.2#Riparian.#WDEQ/WQD recommends this section identify that all wetlands (WOTUS and non-WOTUS) are considered surface waters of the state in accordance with Wyoming Water Quality Rules Chapter 1, Section 2(b)(I). All wetlands within the planning area should also be listed to better identify the riparian resources within the planning area. An example of this can be found in Chapter 3 of the 2013 Lander RMP. It is concerning that BLM failed to recognize WDEQ's authority relating to all surface waters of the state, including wetlands. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-101 | Ch. 4#4-29#4.5.1#Bullet 4: "The State of Wyoming has primacy with regard to the management of water quality and distribution of water (quantity). The BLM manages the public lands within the planning area."#The proposed statement does not consider that water quality and water quantity are regulated by different state agencies-WDEQ/WQD and SEO, respectively. WDEQ/WQD also has primacy and regulatory authority to implement sections of the Clean Water Act and Safe Drinking Water Act. In addition, the statement should also recognize that BLM is responsible for ensuring BLM-authorized activities and actions do not violate Wyoming Water Quality | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |

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| | | Rules. The RMP should develop a separate bullet to discuss water quantity, which is regulated by SEO. Finally, to increase readability, this bullet should be moved to section 3.4.1 where WDEQ/WQD's authority is discussed. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-102 | Ch. 4#4-29#4.5.1#Paragraph 4. "Because the state must comply with federal laws, compliance with state laws includes compliance with federal rules and regulations, including the Clean Water Act, Colorado River Salinity Control Act of 1974, Safe Drinking Water Act, and others. Therefore, it is assumed that any discharged water would meet effluent limits and/or water quality standards at the point of discharge."#The WDEQ/WQD expects permittees with discharge permits to comply with all permit conditions, including effluent limits. However, WDEQ/WQD's WYPDES Program conducts compliance and inspection activities to ensure permittees are meeting requirements. The BLM should coordinate with WDEQ/WQD if it has compliance concerns with any permitted facilities. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-103 | Ch. 4#4-29#4.5.1#"An increase of pollutants in surface waters would affect other beneficial uses (e.g., aquatic life, stock watering, irrigation, and/or drinking water supplies)."#"Beneficial uses" should be changed to "designated uses" when discussing surface water quality to be consistent with the terminology used in Wyoming Water Quality Rules, Chapter 1, Wyoming Surface Water Quality Standards. The RSFO should ensure water quality and water quantity elements are separated to better clarify if the uses are established by the WDEQ/WQD or the SEO. | See revised text in Chapter 4.5.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-104 | Ch. 4#4-29#4.5#Entire section.#The entire section should be revised based on the provided comments. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-105 | Map 3-1###Possible addition.#The RMP references Fontenelle Reservoir, but the reservoir is not included in the Water Resources map. Although Fontenelle is primarily in the Kemmerer Planning Area, it would be beneficial to identify where the reservoir is located within the Water Resources map. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-106 | Appendix C.#C-7 C-8 C-12 C-16##"Colorado Salinity Compact." "Colorado River Salinity Compact" "Green River Salinity Compact"#The noted compacts are inaccurate and should be revised. The applicable legislation should be "Colorado River Salinity Control Act of 1974," if referring to water quality. It is concerning that BLM has erred and incorrectly made references to information that is clearly of public record. | See updated text as appropriate |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-107 | Appendix C#C-13#C.5#A natural process or system. "In addition, the stream is listed with the WDEQ as a 303D stream (threatened or impaired, requiring total maximum daily load)."#The proposed statement is inaccurate as there are no waters on the 303(d) list within the proposed Salt Wells ACEC area. Thus, a 303(d) listing also cannot be used to qualify the Salt Well area as an ACEC. | See updated text in Appendix C. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13624-108 | Appendix C#C-29#C.12 C.16 C.17 C.19 C.21 C.26#ACEC Classifications.#As mentioned in previous comments, the RSFO should provide justification for water recharge area designations. Without providing a justification, water recharge areas should not be used to justify an ACEC designation. BLM appears to be making a decision to drive a policy regarding ACECs without data or justification. Within the RMP there should be a description of what qualifies an area as an aquifer recharge area. This includes geological information and any information provided from cooperating agencies that have authority to classify groundwaters, such as the WDEQ/WQD, SEO, and WGS. Proximity to the Continental Divide is not sufficient justification. The evaluation should indicate what recharge area is being considered, as there is not sufficient information to understand the location of water recharge area boundaries. A map of the proposed aquifer recharge areas should be provided in the document to allow cooperating agencies to visualize the locations of the proposed recharge areas. | See updated Glossary. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13691-4 | Alternative A seems to be localized to the "JMH Planning area". However, with the proposed new RSFO preferred Alternative B and Proposed Alternative D, hydrogeologic investigations would be required "where there is a reasonable expectation that surface waters are connected with geologic formations being dewatered." This situation being proposed for the entire EIS managed area is beyond the scope of the average resource user and beyond the capability of most natural resource professionals. | A range of alternatives has been analyzed for hydrogeologic investigation in Chapter 2.2.6 management actions 1323. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13702-5 | Best available modeling is required under Alternative B in MA 1308. Modeling should not be required, especially on smaller disturbances, because best management practices (BMPs) can be implemented to control sediment and pollutants. | A range of alternatives has been analyzed for modeling in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources- | #13702-6 | Alternative B in MA1313 would prohibit surface disturbing activities and new permanent facilities within 1,320 feet of 100-year flood plains and other aquatic resources. This prohibition is unacceptable because 1,320 feet is | A range of alternatives has been analyzed for surface disturbing activities and Water Resources in Chapter 2.2.6 management actions 1313. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Water Resources (1300-1325) | | arbitrary and is based on inaccurate use of topography. Appropriate BMPs have been developed and should be implemented. BLM should work with state agencies, land users, and industry to ensure that effective conservation measures are applied rather than applying prohibitions or blanket restrictions that potentially lock up resources and leave no room for effective mitigation. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13715-11 | Specific BLM Proposed Management Actions with Respect to ROWs Are Arbitrary and Capricious. a. MA #1313 (Floodplains and Drainages). Alternative B prohibits surface disturbing activities and new permanent facilities within ¼ mile of floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the inner gorge of large ephemeral drainages. No linear crossings are permitted in these areas. This requirement will mean that future pipeline crossings of any drainage feature, including non-wetland ephemeral drainages, may be unavailable even if no resource damage will result. Given the prominence of ephemeral drainages in the RFSO area, the DEIS fails to fully analyze the effect of this restriction on future development of necessary ROWs for product transport, pipeline, transportation, and other uses. Alternative D provides a more reasonable alternative by allowing BLM AO to permit linear crossings on a case by case basis. | A range of alternatives has been analyzed for surface disturbing activities and Water Resources in Chapter 2.2.6 management actions 1313. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13720-4 | Physical Resources (PR) - Water Resources (U.S. Department of the Interior Bureau of Land Management, 2023)(Page 2-22) We respectfully request that BLM edits Alternative B to add language we identify here in italics: "Apply appropriate measures to protect groundwater quality and quantity and prevent commingling of aquifers" | A range of alternatives has been analyzed for ground water quality in Chapter 2.2.6 management action 1323. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13720-8 | While the state of Wyoming retains primacy over its surface and groundwater, the BLM plays an important role in groundwater protection, because of the drilling and production of groundwater during BLM-permitted oil and gas development. "Land-use decisions that fail to consider the long-term quality, availability, and susceptibility of ground water resources create conditions that contribute to loss of ground water recharge, overuse of water resources, and human health and ecological impacts resulting from ground water contamination. On the other hand, land-use practices that protect and conserve water resources and maintain or even increase aquifer recharge are key to maintaining long-term water availability and economic vitality." (Ground Water Protection Council, 2017) "Produced water" is groundwater that is a by-product of natural gas and oil development; it is extracted with the gas and is then disposed of through "injection." The Upper Green River Alliance has tracked and analyzed groundwater withdrawals and injection in the Pinedale Anticline and Jonah Infill natural gas fields, through their respective Data Management Systems. (Pinedale Anticline Project Office, 2024) (Note: The Jonah Data Management System is no longer updated or publicly available.) We have found tremendous increases in the amount of groundwater that is produced and injected over the past two decades. This is concerning due to the rapid rate of groundwater depletion in the Colorado River Basin as a whole, the extreme drought affecting our aquifers, rivers, streams and ecosystems, and the increasing needs of downstream farmers, ranchers, businesses, and residential water users. While we have tracked Pinedale BLM gas field groundwater withdrawals, similar withdrawals can be expected and reported in the Rock Springs management area. Graph 1 (below) is a graphic display of the increasing amounts of groundwater, in gallons, produced in the Pinedale Anticline natural gas field from 2000-2022. Graph 2 (below) displays the increase of water injected, often to depths of 14,000'. Statistics are reported for every Wyoming gas and oil well at the Wyoming Oil and Gas Conservation Commission. (Wyoming Oil and Gas Conservation Commission, 2024) The Jonah Infill natural gas field shows similar increases in the amount of groundwater produced over the past two decades (Graph 3 below). | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13720-9 | We respectfully request that the DRMP DEIS in section 4.5.1 "Assumptions" includes the bullet point that: "Groundwater is critical for sustaining flow in the Green River, its tributaries, and ultimately the Colorado River. Groundwater and surface water are a joint resource that must be effectively managed for long-term ability to meet future allocations to the seven Basin states." | The assumptions listed are specific to BLM's analysis. See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13720-10 | We respectfully request that BLM designs and implements in the RMP FEIS a groundwater monitoring program similar to the Pinedale Anticline Data Management System, that measures groundwater quantity withdrawn during natural gas development for all existing and future natural gas wells and fields, in coordination with other state and federal water management agencies, and in compliance with federal laws. The goal should be to help understand and responsibly manage BLM-permitted surface and subsurface impacts to groundwater and connected streamflow in the Upper Colorado River Basin. | A range of alternatives has been analyzed for management of water resources in Chapter 2.2.6 management actions 1300-1325. Analysis of impacts for actions in each alternative is found in Chapter 4. Best Management Practices for water resources are found in Appendix A.2.8. Identification of modeling programs for specific projects is outside the scope of this document. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13720-11 | We respectfully request that BLM edits the Alternative B column in the Physical Resources (PR) - Water Resources table on page 2-22 to read: "Apply appropriate measures to protect groundwater quality and quantity and prevent commingling of aquifers." | A range of alternatives has been analyzed for management of shallow unconfined reservoirs in Chapter 2.2.6 management action 1325. Analysis of impacts for action in each alternative is found in Chapter 4. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13720-18 | A.2.8 Best Management Practices for Water Resources Best Management Practices are appropriate to mitigate water quantity impacts. We respectfully request that the BLM includes existing aquifer information in this section, available from the Wyoming State Geological Survey. | See Appendix A.2.8 for discussion of Best Management Practices for water resources. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13720-19 | We respectfully request that the BLM adds the following Best Management Practices to the list in this section: * Do not use unlined pits at all, anywhere. * Do not bury liners on site. * A monitoring plan must also include baseline and periodic water quantity data, with publicly- available, annual reports. | See Appendix A.2.8 for discussion of Best Management Practices for water resources. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-79 | Best available modeling is required under Alternative B in Management Action #1308. Modeling should not be required, especially on smaller disturbances, because best management practices (BMPs) can be implemented to control sediment and pollutants. | A range of alternatives has been analyzed for modeling in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-80 | Alternative B in Management Action #1313 would prohibit surface disturbing activities and new permanent facilities within 1,320 feet of 100-year flood plains and other aquatic resources. This prohibition is unacceptable because 1,320 feet is arbitrary and is based on inaccurate use of topography. Appropriate BMPs have been developed and should be implemented. BLM should work with state agencies, land users, and industry to ensure that effective conservation measures are applied rather than applying prohibitions or blanket restrictions that potentially lock up resources and leave no room for effective mitigation. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. A range of alternatives has been analyzed for management of floodplains and other aquatic resources in Chapter 2.2.6 management action 1313. Analysis of impacts for actions in each alternative is found in Chapter 4 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-109 | MA #1303 ALT A Management in the planning area would emphasize: * Reduction of sediment, phosphate, and salinity load in drainages where possible. Measures listed in Appendix A would be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations would also be applied, as necessary (Wyoming 1989). * Maintaining and improving drainage channel stability. * Restoring damaged wetland areas. * Exclosures would be designed to allow ample water for livestock and allow minimum impediments to big game migration. Industry Position: Acceptable because it follows WDEQ-WQD Rules and Regulations. ALT B Resource: Physical Resources (PR) - Water Resources 1300 - 1325) Management in the planning area would: * Reduce sediment, phosphate, and salinity loads where possible. Measures listed in Appendix A would be applied. * Improve drainage channel resiliency and stability (improvement could include offsite mitigation). * Restore damaged riparian/wetland areas. * Design riparian exclosures to improve water quality conditions in riparian areas. Industry position: Not acceptable Reason: Arbitrary application of Appendix A should not be applied universally, rather it should be applied as necessary. ALT C Management in the planning area would consider: * Reducing sediment, phosphate, and salinity loads in drainages where possible. Measures listed in Appendix A would be applied, as necessary. * Maintaining or improving drainage channel stability. * Restoring damaged riparian/wetland areas. * Designing exclosures to reduce impediments to wildlife movement and take into account livestock grazing and other uses. Industry Position: Acceptable. Reference to the WY requirements in Alternative A provides added value that is not included here. ALT DEmphasize management in the planning area that would: * Reduce sediment, phosphate, and salinity loads in drainages. Appropriate measures listed in Appendix A would be applied. * Maintain or improve drainage channel and watershed stability and resiliency. * Identify and restore damaged riparian/wetland areas. * Design structures, such as fencing and instream structures, with consideration of other potentially affected resources and uses. Industry position: Not acceptable Reason: Arbitrary application of Appendix A should not be applied universally, rather it should be applied as necessary. | A range of alternatives has been analyzed for management of Water Resources in Chapter 2.2.6 management actions 1303. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-110 | MA #1305 Alternative A In the JMH planning area, the BLM would continue to participate with federal, state, and local government agencies to develop and implement salinity control plans for the Colorado River Basin and maintain existing and future applicable water quality plans. Industry position: Not applicable Reason: Applies only to JMH planning area. Alternative B Participate with federal, state, and local government agencies to develop and implement salinity control measures, water quality improvement plans, and total maximum daily loads (TMDL). Participate with federal, state, and local government agencies and the Colorado River Salinity Control Forum to develop and implement salinity control plans. Industry position: Not acceptable. Reason: Industry is already complying with Colorado Salinity Control Forum discharge standards and limitations based on WDEQ- WQD standards. TMDLs should not be necessary when WDEQ-WQD standards are being met. WDEQ-WQD has primacy for water quality standards and control. Alternative D Participate with federal, state, and local government agencies, affected landowners and the Colorado River Salinity Control Forum when developing and implementing salinity control measures, water quality improvement plans, salinity control plans, and TMDLs. Industry position: Not acceptable. Reason: Industry works under the Salinity Forum through WDEQ-WQD standards. TMDLs should not be necessary when WDEQ-WQD standards are followed. WDEQ-WQD has primacy for water quality standards and control.Proposed Alternative Actions with the potential to create surface disturbance and potential for runoff to the Green River watershed will be designated for minimal erosion, as far as practical, to comply with | See Section 1.5 and Section 4.5.1 |

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| | | the Colorado River Salinity Control Act of 1974, as applicable. Permitting and enforcement will be controlled through WDEQ-WQD salinity control standards. Language is taken from Alternatives A and D. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-111 | MA #1308 ALT A Require best available modeling to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies from all surface disturbing activities. Industry position: Not acceptable. Reason: Modeling should not be required for all surface disturbances. All surface disturbances has not been justified and is open-ended because many disturbances for surface facilities will be very small. Water quality protections are adequately covered in the WDEQ-LQD mine permit and the WDEQ-WQD Stormwater Permit Pollution Prevention Plan. ALT BMay use modelling to quantify the amount of sediment, salinity and associated nutrients that would be transported to water bodies. Industry position: Acceptable. Reason: Acceptable as long as water quality requirements are driven WDEQ-LQD regulations and the mine permit and WDEQ- WQD Stormwater Permit Pollution Prevention Plan. REC Sediment, salinity, and other nutrients will be controlled on surface disturbances for facilities necessary for production of trona in the KSLA. Control standards and quantification, if necessary, will be determined in the WDEQ-LQD mine permit, WDEQ-WQD WYPDES permit and Stormwater Pollution Prevention Plan. | A range of alternatives has been analyzed for modeling in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-112 | MA #1309 ALT A Site-specific Activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) would be prepared for areas where needed. These areas include but are not limited to Cedar Mountain and Sage Creek/Current Creek. The Red Creek watershed plan would continue to be implemented as appropriate. Industry position: Not acceptable. Reason: This alternative is relevant primarily to specified areas. Erosion and sediment control, revegetation, and water quality protection are primarily covered in the WDEQ-LQD mine permit and WDEQ-WQD Stormwater Pollution Prevention Plan. ALT BRequire site-specific activity and implementation plans to reduce erosion and sediment yield, promote ground cover, and enhance water quality for all areas. Activity and implementation plans would be site-specific watershed management stipulations and BMPs and incorporate sediment reduction and water quality improvement objectives. Industry position: Not acceptable. Reason: Plans to reduce erosion and sediment yield, for revegetation, and water quality protection are in the WDEQ- LQD mine permit and the WDEQ-WQD Stormwater Pollution Prevention Plan. ALT C Site-specific activity and implementation plans may be prepared but would not be required to reduce erosion and sediment yield, promote ground cover, and enhance water quality. Activity and implementation plans would include only general watershed management stipulations, BMPs, and incorporate sediment reduction and water quality improvement objectives if applicable land health standards are not met. Industry position: Acceptable Reason: Plans that are elective under this alternative are in the WDEQ-LQD mine permit and the WDEQ-WQD Stormwater Pollution Prevention Plan and WYPDES permit. ALT D Prepare on a case-by-case basis site-specific activity and implementation plans to reduce erosion and sediment yield, promote ground cover, and enhance water quality. Activity and implementation plans could include general or specific watershed management terms and BMPs and incorporate sediment reduction water retention, and water quality improvement objectives. Consider all existing locally developed watershed plans as new activity and implantation plans are developed. Industry position: Not acceptable. Reason: Plans to reduce erosion and sediment yield, for revegetation, and water quality protection are in the WDEQ-LQD mine permit and the WDEQ-WQD Stormwater Pollution Prevention Plan. REC Plans for controlling erosion and sediment yield, protecting water quality, and revegetation will be prepared as required in the WDEQ-LQD mine permit and WDEQ- WQD Stormwater Pollution Prevention Plan. Language on preparing a plan is taken from Alternatives A and C. | A range of alternatives has been analyzed for site-specific Activity and Implementation plans in Chapter 2.2.6 management action 1309. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-113 | MA #1313 ALT A 100-year floodplains, wetlands, and riparian areas are closed to any new permanent facilities (e.g. tanks, pits etc.). Proposals for linear crossings in these areas would be considered on a case-by- case basis. Industry position: Acceptable Reason: Adequate management can be applied on a case-by-case basis for such surface disturbing activities. WDEQ- WQD's stormwater and WYPDES program also required additional permitting, controls and enforcement for these activities. Alternative B Prohibit surface disturbing activities and new permanent facilities (e.g., storage tanks, structure pits, etc.) within 1,320 feet (¼ mile) of 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages. Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing. Avoid linear crossings in these areas. Industry position: Not acceptable. Reason: 1,320 feet is arbitrary due to the inaccurate use of topography to generate flood plain maps. Many flood plain maps are out of date. Localized topography and site conditions must be taken into account but are ignored with this language. Alternative C Consider, on a case-by-case basis, surface disturbing activities and new permanent facilities (e.g., storage tanks, structure pits, etc.) proposed for placement within riparian areas or wetlands and 100-year floodplains or adjacent to the inner gorge of large ephemeral drainages. Consider, on a case-by-case basis, linear crossings in these areas. Industry position: Acceptable Reason: Adequate management can be applied on a case-by-case basis for such surface disturbing activities. WY DEQ's stormwater and NPDES program also required additional permitting, controls and enforcement for these activities. Alternative D Avoid placement of permanent facilities within 100-year floodplains, and within 1,320 feet (¼ mile) of wetlands, riparian areas, and perennial streams. Avoid surface disturbing and construction activities within 500 feet of the outer edge of wetland/riparian areas or perennial streams. Avoid surface disturbing and construction activities within 100 feet of the edge of the | A range of alternatives has been analyzed for management of floodplains, wetlands, riparian areas, perennial large ephemeral steams in Chapter 2.2.6 management action 1313 - 1315. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |

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| | | inner gorge of intermittent channels or ephemeral drainages. Designate these areas as a right-of- way (ROW) avoidance area. Allow linear crossings if a site- specific analysis by a BLM Authorized Officer (AO) determines that no adverse impacts would be likely to occur and a plan to mitigate potential impacts to water quality is approved. Allow structures that would enhance the protection and management of streams, wetlands, and riparian areas. Approval will be on a case-by-case basis and subject to adequate mitigation of impacts following BLM mitigation policies and Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities. * Controlled Surface Use (CSU) for fluid minerals. Industry position: Not acceptable. Reason: 1,320 feet is arbitrary due to the inaccurate use of topography to generate flood plain maps. Many flood plain maps are out of date. Localized topography and site conditions must be taken into account but are ignored with this language. Proposed Alternative Alternative C is preferred but Alternative A is also acceptable because both alternatives are based on a case-by-case evaluation and conform with WDEQ and Army Corp of Engineers requirements. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-114 | MA #1314 ALT A In the JMH planning area, permanent facilities such as tanks and pits are not allowed in 100-year floodplains, wetlands, or riparian areas. However, structures that would enhance the protection and management of 100-year floodplains, wetlands, and riparian areas could be considered. Proposals for linear crossings in these areas would be considered case by case. Industry position: Not applicable. Reason: Applicable to JMH. | A range of alternatives has been analyzed for management of floodplains, wetlands, riparian areas, perennial large ephemeral steams in Chapter 2.2.6 management action 1313 - 1315. Analysis of impacts for actions in each alternative is found in Chapter 4. S |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-115 | MA #1315 Alternative A Surface disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, power lines, roads, recreation sites, fences, wells, etc.) that could adversely affect water quality and wetland and riparian habitat, would avoid the area within 500 feet of or on 100-year floodplains, wetland/riparian areas, or perennial streams, and within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages. Proposals for linear crossings in these areas would be considered on a case-by- case basis. Activities could be allowed if a site- specific analysis determines that no adverse impacts would occur to floodplains, wetland/riparian areas, perennial streams, or water quality, and a plan to mitigate impacts to water quality is approved. Industry position: Acceptable | A range of alternatives has been analyzed for management of floodplains, wetlands, riparian areas, perennial large ephemeral steams in Chapter 2.2.6 management action 1313 - 1315. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13751-116 | MA 1320 ALT D Avoid or mitigate, on a case-by-case basis, BLM-authorized activities and infrastructure such as unlined impoundment ponds/pits, reserve pits, and evaporation ponds that could result in the contamination of sensitive water resources, including Source Water Protection Areas identified in Wellhead or Source Water Protection Plans approved local governing bodies and "High" and "Moderately High" sensitivity aquifer systems identified through the use of the Wyoming Groundwater Vulnerability Assessment Handbook or similar document as updated over time. Industry position: Not acceptable Reason: The management action should include 'avoid, minimize or mitigate only NEW activities on a case-by-case basis'. As written, it applies to valid existing facilities. BLM should refer to WDEQ Rules and Regulations and oversite of such programs. Wyoming has primacy for watershed protection, NPDES, stormwater and underground injection control for the protection of such water source in Wyoming. | A range of alternatives for BLM-authorized activities and infrastructure has been analyzed in Chapter 2.2.6 management action 1320. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13754-14 | The state of Wyoming, with responsibility delegated to the State Engineer's Office, manages the water resources in the state and has jurisdiction to determine their allocation. Any decisions affecting either water quality or quantity should be deferred to the state of Wyoming. Because of this, the BLM should not outright preclude any areas in the RSFO from surface disturbing activities due to their perceived impacts on water quality or quantity. Regulations are such that they can be tailored and their stringency be commensurate to offset the expected amount of water quality degradation. It is rare that projects fail due to an inability to find a reasonable regulatory solution, but those instances do occur. The probability of project success should not be based on a non-jurisdictional decision from the BLM. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13759-1 | Climate change is minimally addressed in the Rock Springs RMP. The majority of where climate change is mentioned in the document is in the Monetized Impacts of Greenhouse gases (GHG's) section. This seems to be where a detailed conversation of climate change begins and ends in the RMP. Addressing GHG's is important, but there are many other issues that should be considered in this management plan in the context of climate change, such as early snowmelt, drought, loss of habitat, wildfires, and water resources (EPA, 2016). I think that this RMP should describe more ways the RSFO can be proactive around these issues and explain how plans will be adaptive in the face of inevitable change. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13784-6 | * MA#1308, Alt B: "Require best available modeling to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies from all surface disturbing activities." (p. 2-15) Comment: The theme of Alternative B is to require additional workloads, of which BLM is likely incapable of doing, especially across ALL surface disturbing activities. Alternative D, states "No similar action," because BLM knows it is unlikely to happen or to have the ability to monitor to the level expected. All project level NEPA will get litigated if the modeling is not completed prior to the analysis and decision. | A range of alternatives has been analyzed for modeling in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water | #13784-48 | "Livestock grazing and range improvements could involve localized surface disturbance from activities such as water source development and construction offences. These activities could result in localized vegetation removal and reduction of soil surface..." (p. 4-33) Comment: BLM is considering livestock grazing as a surface disturbance under Alternative A, which WDA can not support and does not meet the definition of surface disturbing activities | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |

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| Resources (1300-1325) | | "Management that prohibits or restricts recreation-related surface disturbing activities such as camping, cutting of trees and firewood for camping, and construction of recreation site facilities..." (p. 4-33) Comment: While WDA doesn't oversee recreation, we reiterate our concern of BLM's misapplication and analysis of surface disturbing activities. Camping and cutting of firewood do not disturb soils. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13784-49 | 4.5.3 Water Resources, Alternative B: "Vegetation treatment actions would have similar impacts as those discussed in Alternative A, but longer resting times for treated areas would likely provide greater protections to water resources in these areas as vegetation and soil would have a longer timeframe to establish and stabilize..." (p. 4-35) Comment: The analysis is misleading by assuming the vegetation treatments are near water or on steep slopes where soil runoff is likely to occur. Longer rest times under this analysis are assumed for livestock grazing, but not indicated specifically. Rest from livestock will not guarantee the vegetation objectives are met. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13784-51 | "Impacts to water resources from livestock grazing management would be similar to Alternative A. Under Alternative B some areas would be prohibited or closed to livestock grazing. In these areas, reduced grazing pressure on vegetation would provide greater protections to water resources when compared to Alternative A." (p. 4-36) Comment: The analysis fails to include the necessary information such as acres closed or prohibited from livestock grazing in Alternative B to compare with Alternative A. "Some areas" doesn't give the livestock grazing permittees the information needed to fully understand the impacts to their permits. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-1 | Alternatives lack attention to water quantity and should all be revised to be inclusive of the value of Wyoming's water. Some obvious examples are the impacts beneficial use has on Wyoming socioeconomics, and the impacts unwarranted phreatophyte additions have on return flows, conveyance and transit losses, and that consumptive use and conserved consumptive use is important for compliance to the 1948 Upper Colorado River Compact and the North Platte Decree. The Wyoming State Engineer's Office should be a direct collaborator to evaluate the alternatives for these amendments. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. See Chapter 5.1 and 5.1.1 for consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-2 | Glossary/Acronyms 26/61 Add the following definition to the Glossary: Wyoming State Engineer's Office - the Wyoming State Engineer's Office and Board of Control is to provide for the general supervision and protection of both inter- and intra-state waters of Wyoming. This includes the appropriation, distribution and application to beneficial use of water as provided under the prior appropriation doctrine, and to maintain the flexibility within that framework to meet the changing needs of the citizens of Wyoming. The State Engineer's Office collects, analyzes, maintains and provides water related information for ensuring the appropriate management and regulation of Wyoming's water resources | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. The engineering office is listed in the Coordination and Consistency section. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-3 | Glossary/Acronyms 26/62 Add the following definition to the Glossary: Consumptive Use - The amount of water transpired during plant growth plus what evaporates from the soil surface and foliage. Consumptive use is what is used by the BOR to identify Upper Colorado River state's annual quantity of water that is put to beneficial use compared to each state's apportionment. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-4 | Glossary/Acronyms 26/62 Add the following definition to the Glossary: Wyoming Water development Commission - The Wyoming Water Development Commission is responsible for addressing the water resources needs of our citizens through the construction of new water supply projects and the rehabilitation of existing water supply projects, and by providing and maintaining adequate water supplies and planning for future needs. | The Wyoming Water Development Office plan is listed in Table 1.2 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-5 | Glossary/Acronyms 26/65 Add the following definition to the Glossary: Law of the River - The Law of the River is a collection of binding agreements that administer the water in the Colorado River watershed. | "The Law of the River," is not discussed within the document. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-6 | Glossary/Acronyms 26/63 Add the following definition to the Glossary: Compact - An interstate compact is a contract between two or more states, often to divide shared resources. It carries the force of statutory law and allows states to perform a certain action, observe a certain standard, or cooperate in a critical policy area. | See Section 1.4 for the Planning Criteria. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-7 | Glossary/Acronyms 26/64 Add the following definition to the Glossary: Decree - A decree is an order having the force of law by judicial decree, often to divide resources between state's when an agreement is seen to be breached by one or more state in a compact and litigation is sought by one or more state's in the compact. | See Section 1.4 for the Planning Criteria. |
| 803 - Physical Resources-Water | #13785-8 | Introduction: Planning Criteria 68 1.4 Add following bullet: the RMP will follow all Compacts and Decrees the state Wyoming is a party to. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |

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| Resources (1300-1325) | | | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-9 | Watershed and Water Quality 288 3.4.1 For clarity, Fontenelle Reservoir should be described as not being within the study area but as a reservoir that is on the mainstem of the Green River as it is identified in the Water Resources map as bordering the study area and not actually being in the study area. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-10 | Watershed and Water Quality 288 3.4.1 "The portion of the planning area that is drained by the Green/Colorado River (Region 14, Basin 1404401) is subject to the Colorado River Compact." "The portion of the planning area that is drained by the Green/Colorado River (Region 14, Basin 1404401) is subject to the Law of the River. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-11 | Watershed and Water Quality 288 3.4.1 "The major portion of the planning area not drained by the Colorado River" "The major portion of the planning area not in the drainage of the Colorado River" | See Chapter 3 for description of Affected Environment. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-12 | Watershed and Water Quality 288 3.4.1 Wyoming has no obligations to any quantity of water to the Missouri River. Wyoming serves as a committee member to the Missouri River Recovery Implementation Committee | See revised text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-13 | Watershed and Water Quality 288 3.4.1 " Sweetwater River is located within the Missouri River Basin and is subject to all applicable rules and agreements for that watershed ....Sweetwater River is located within the North Platte River drainage and will comply with the North Platte Decree and the Platte River Recovery and Implementation Plan" | See revised text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-14 | Watershed and Water Quality 288 3.4.1 Add following as 2nd sentence " The Wyoming Constitution provides that water of all natural streams, springs, lakes, or other collections of still water be the property of the state and therefor Wyoming Title 41 will be complied with. " | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-15 | Watershed and Water Quality 288 3.4.1 "Water bodies in Wyoming are classified for water quality regulation according to beneficial uses by the Wyoming Department of Environmental Quality (WDEQ)." "Water in the State of Wyoming is permitted according to beneficial uses by the Wyoming State Engineer's Office." *As for water body quality, the Wyoming Department of Environmental Quality (WDEQ) standards should be described as recommended by that agency for an accurate description. | See revised text in Chapter 3.4.1 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-16 | Watershed and Water Quality 289 3.4.2 The Groundwater description lacks sufficient detail to convey the complexity of the system. Two possible sources to assist in the development of a proper description are the Scientific Investigations Report 2004-5214, Water Resources of Sweetwater County, Wyoming that the USGS devotes approximately 36 pages to groundwater resources and geology of the Green River Basin, and the Executive Summary to the Green River Basin Water Plan II Groundwater Study Level 1 (2007-2009) that can be found with the Green River Basin Plan on Wyoming Water Development Commissions webpage. Please contact the Groundwater division at the Wyoming State Engineer's Office or the Wyoming Water Development Commission for use or questions. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-20 | Water Resources: Assumptions 345 4.5.1 "The State of Wyoming has primacy with regard to management of water quality and distribution of water (quantity)." " Wyoming's Constitution, Title 41 dictates that all water in Wyoming is the property of Wyoming and therefor Wyoming state agencies the Wyoming Department of Environmental Quality and the Wyoming State Engineer's Office have primacy over the management of water quality and administration of water (quantity) respectively." | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-21 | Water Resources: Assumptions 345 4.5.1 "Because the state must comply with federal laws...., " Because the state must comply with interstate compacts, decrees, and federal water quality standards laws," | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13785-22 | Water Resources: Assumptions 345 4.5.1 "Therefore, it is assumed that any discharged water would meet effluent limits and/or water quality standards at the point of discharge. " "Therefore, it is anticipated that any discharged water would meet effluent limits and/or water quality standards at the point of discharge. " | Wording is appropriate for "Assumptions" section |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-23 | Water Resources: Assumptions 350 4.5.3 commingling comingling | Wording is appropriately used according to dictionary. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-24 | Consultation and Coordination 594 5.1.2 Coordinates and cooperates on water rights and permitting Administers and regulates Wyoming's water resources | Text is sufficient for BLM analysis needs. See Chapter 1.4 for the planning criteria. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-25 | Chapter 3 MAPS Map legends should differentiate Reservoirs and Lakes | Maps are adequately labeled for this document |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-26 | Chapter 3 MAPS Maps should have all county boundaries within the study area with clear labels, i.e. Water Resource map Sublette County label is appropriate | Maps are adequately labeled for this document |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-27 | Appendices If all the state's governing documents were listed in an Appendix (like Appendix E) it would provide clarity to how complex operations are in both quality and quantity of water, and the exercise of listing and describing the state's governing documents would assist in the inaccurate description of governing documents throughout the entirety of the RMP. | Appropriated governing documents are included in the document |
| 803 - Physical Resources-Water Resources (1300-1325) | #13785-28 | Appendix C The efforts to properly describe groundwater in 3.4.2 should carry over to amend Appendix C inaccuracies | Appendix C provides the criteria and evaluation of ACECs. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13787-37 | MA #1107 PR-05 Areas where the soils are highly erodible or difficult to reclaim would receive increased attention and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation would not occur, and that water quality would not be adversely affected. When applicable, an erosion control plan would be prepared as part of the site-specific analysis process for activity and implementation planning. Rehabilitation plans would be developed and implemented for disturbed areas as needed. Industry position: Not acceptable Reason: These should not be avoidance areas in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. Prohibit surface disturbing activities in areas where the soils have any of the following: * A wind erodibility index greater than 100 * Saline * Sodic * Saline-sodic * 2:1 clays * Sand dunes * Slopes greater than 25% * Slumps and creeps and/or rutting * Areas that are difficult to reclaim. Manage as: 1) no surface occupancy (NSO) for fluid minerals; 2) closed to mineral material sales/disposals; 3) closed to all solid mineral leasing. Industry position: Not acceptable Reason: There should be no closures to trona leasing in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. No similar action. Avoid surface disturbing activities in areas with limited reclamation potential, subject to adequate mitigation of impacts following BLM mitigation policies. The operator must submit an approved mitigation plan before proposed project will be approved. * Controlled Surface Use (CSU) for fluid minerals. Industry position: Not acceptable Reason: Hard to reclaim soils should not be an avoidance area in the KSLA. Soil management and revegetation methodologies for hard to reclaim soils are well developed and recognized in the mining industry. Soil handling and reclamation plans for mining are reviewed and approved by WDEQ-LQD. Soil handling and reclamation plans for hard to reclaim soils will be reviewed and approved in the mine permit by WDEQ- LQD. Resource: Physical Resources (PR) - Water Resources 1300 - 1325) | A range of alternatives for soils has been analyzed in Chapter 2.2.6 management action 1107. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13787-38 | MA #1303 PR-10, PR-09 PR-11, BR- 22.1, BR-24, BR-31.1 Management in the planning area would emphasize: * Reduction of sediment, phosphate, and salinity load in drainages where possible. Measures listed in Appendix A would be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations would also be applied, as necessary (Wyoming 1989). * Maintaining and improving drainage channel stability. * Restoring damaged wetland areas. * Exclosures would be designed to allow ample water for livestock and allow minimum impediments to big game migration. Industry Position: Acceptable because it follows WDEQ-WQD Rules and Regulations. Management in the planning area would: * Reduce sediment, phosphate, and salinity loads where possible. Measures listed in Appendix A would be applied. * Improve drainage channel resiliency and stability (improvement could include offsite mitigation). * Restore damaged riparian/wetland areas. * Design riparian exclosures to improve water quality conditions in riparian areas. Industry position: Not acceptable Reason: Arbitrary application of Appendix A should not be applied universally, rather it should be applied as necessary. Management in the planning area would consider: * Reducing sediment, phosphate, and salinity loads in drainages where possible. Measures listed in Appendix A would be applied, as necessary. * Maintaining or improving drainage channel stability. * Restoring damaged riparian/wetland areas. * Designing exclosures to reduce impediments to wildlife movement and take into account livestock grazing and other uses. Industry Position: Acceptable. Reference to the WY requirements in Alternative A provides added value that is not included here. Emphasize management in the planning area that would: * Reduce sediment, phosphate, and salinity loads in drainages. Appropriate measures listed in Appendix A would be applied. * Maintain or improve drainage channel and watershed stability and resiliency. * Identify and restore damaged riparian/wetland areas. * Design structures, such as fencing and instream structures, with consideration of other potentially affected resources and uses. Industry position: Not acceptable Reason: Arbitrary application of Appendix A should not be applied universally, rather it should be applied as necessary. Continue to follow Alternative A because it follows WDEQ-WQD rules and regulations. | A range of alternatives has been analyzed for management of Water Resources in Chapter 2.2.6 management actions 1303. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13787-39 | MA #1305 PR-10, PR-09, PR-11, BR- 22.1, BR-24, BR-31.1 In the JMH planning area, the BLM would continue to participate with federal, state, and local government agencies to develop and implement salinity control plans for the Colorado River Basin and maintain existing and future applicable water quality plans. Industry position: Not applicable Reason: Applies only to JMH planning area. Participate with federal, state, and local government agencies to develop and implement salinity control measures, water quality improvement plans, and total maximum daily loads (TMDL). Participate with federal, state, and local government agencies and the Colorado River Salinity Control Forum to develop and implement salinity control plans. Industry position: Not acceptable Reason: Industry is already complying with Colorado Salinity Control Forum discharge standards and limitations based on WDEQ- WQD standards. TMDLs should not be necessary when WDEQ-WQD standards are being met. WDEQ-WQD has primacy for water quality standards and control. Same as Alternative A. Industry position: Not acceptable Reason: Only applies to the JMH planning area. Participate with federal, state, and local government agencies, affected landowners and the Colorado River Salinity Control Forum when developing and implementing salinity control measures, water quality improvement plans, salinity control plans, and TMDLs. Industry position: Not acceptable Reason: Industry works under the Salinity Forum through WDEQ-WQD standards. TMDLs should not be necessary when WDEQ-WQD standards are followed. WDEQ-WQD has primacy for water quality standards and control. Actions with the potential to create surface disturbance and potential for runoff to the Green River watershed will be designated for minimal erosion, as far as practical, to comply with the Colorado River Salinity Control Act of 1974, as applicable. Permitting and enforcement will be controlled through WDEQ-WQD salinity control standards. Language is taken from Alternatives A and D. | A range of alternatives has been analyzed for management of Salinity control measures in Chapter 2.2.6 management actions 1305. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13787-40 | MA #1308 PR-07 No similar action. Require best available modeling to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies from all surface disturbing activities. Industry position: Not acceptable Reason: Modeling should not be required for all surface disturbances. "All surface disturbing activities" has not been justified and is open-ended because many disturbances for surface facilities will be very small. In addition, water quality protections are adequately covered in the WDEQ-LQD mine permit and the WDEQ- WQD Stormwater Permit Pollution Prevention Plan. May use modelling to quantify the amount of sediment, salinity and associated nutrients that would be transported to water bodies. Industry position: Acceptable Reason: Acceptable as long as water quality requirements are driven WDEQ-LQD regulations and the mine permit and WDEQ- WQD Stormwater Permit Pollution Prevention Plan. No similar action. Sediment, salinity, and other nutrients will be controlled on surface disturbances for facilities necessary for production of trona in the KSLA. Control standards and quantification, if necessary, will be determined in the WDEQ-LQD mine permit, WDEQ-WQD WYPDES permit and Stormwater Pollution Prevention Plan. | A range of alternatives has been analyzed for quantifying sediment, salinity and other nutrients in Water Resources in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws, and valid and existing rights. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13787-41 | MA #1309 PR-07, PR-09, PR-11, BR- 22.1, BR-24, BR-31.1 Site-specific Activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) would be prepared for areas where needed. These areas include but are not limited to Cedar Mountain and Sage Creek/Current Creek. The Red Creek watershed plan would continue to be implemented as appropriate. Industry position: Not acceptable Reason: This alternative is relevant primarily to specified areas. Erosion and sediment control, revegetation, and water quality protection are primarily covered in the WDEQ-LQD mine permit and WDEQ-WQD Stormwater | A range of alternatives has been analyzed for activity and implementation plans in Water Resources in Chapter 2.2.6 management actions 1309. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws, and valid and existing rights. |

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| | | Pollution Prevention Plan. Require site-specific activity and implementation plans to reduce erosion and sediment yield, promote ground cover, and enhance water quality for all areas. Activity and implementation plans would be site-specific watershed management stipulations and BMPs and incorporate sediment reduction and water quality improvement objectives. Industry position: Not acceptable Reason: Plans to reduce erosion and sediment yield, for revegetation, and water quality protection are in the WDEQ- LQD mine permit and the WDEQ-WQD Stormwater Pollution Prevention Plan. Site-specific activity and implementation plans may be prepared but would not be required to reduce erosion and sediment yield, promote ground cover, and enhance water quality. Activity and implementation plans would include only general watershed management stipulations, BMPs, and incorporate sediment reduction and water quality improvement objectives if applicable land health standards are not met. Industry position: Acceptable Reason: Plans that are elective under this alternative are in the WDEQ-LQD mine permit and the WDEQ-WQD Stormwater Pollution Prevention Plan and WYPDES permit. Prepare on a case-by-case basis site-specific activity and implementation plans to reduce erosion and sediment yield, promote ground cover, and enhance water quality. Activity and implementation plans could include general or specific watershed management terms and BMPs and incorporate sediment reduction water retention, and water quality improvement objectives. Consider all existing locally developed watershed plans as new activity and implantation plans are developed. Industry position: Not acceptable Reason: Plans to reduce erosion and sediment yield, for revegetation, and water quality protection are in the WDEQ-LQD mine permit and the WDEQ-WQD Stormwater Pollution Prevention Plan. Plans for controlling erosion and sediment yield, protecting water quality, and revegetation will be prepared as required in the WDEQ-LQD mine permit and WDEQ- WQD Stormwater Pollution Prevention Plan. Language is taken from Alternatives A and C. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13787-42 | MA #1313 PR-05, PR-11, PR-09 100-year floodplains, wetlands, and riparian areas are closed to any new permanent facilities (e.g. tanks, pits etc.). Proposals for linear crossings in these areas would be considered on a case-by- case basis. Industry position: Acceptable Reason: Adequate management can be applied on a case-by-case basis for such surface disturbing activities. WDEQ- WQD's stormwater and WYPDES program also required additional permitting, controls and enforcement for these activities. Prohibit surface disturbing activities and new permanent facilities (e.g., storage tanks, structure pits, etc.) within 1,320 feet (¼ mile) of 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages. Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing. Avoid linear crossings in these areas. Industry position: Not acceptable Reason: 1,320 feet is arbitrary due to the inaccurate use of topography to generate flood plain maps. Many flood plain maps are out of date. Localized topography and site conditions must be taken into account, but are ignored with this language. Consider, on a case-by-case basis, surface disturbing activities and new permanent facilities (e.g., storage tanks, structure pits, etc.) proposed for placement within riparian areas or wetlands and 100-year floodplains or adjacent to the inner gorge of large ephemeral drainages. Consider, on a case-by-case basis, linear crossings in these areas. Industry position: Acceptable Reason: Adequate management can be applied on a case-by-case basis for such surface disturbing activities. WY DEQ's stormwater and NPDES program also required additional permitting, controls and enforcement for these activities. Avoid placement of permanent facilities within 100-year floodplains, and within 1,320 feet (¼ mile) of wetlands, riparian areas, and perennial streams. Avoid surface disturbing and construction activities within 500 feet of the outer edge of wetland/riparian areas or perennial streams. Avoid surface disturbing and construction activities within 100 feet of the edge of the inner gorge of intermittent channels or ephemeral drainages. Designate these areas as a right-of- way (ROW) avoidance area. Allow linear crossings if a site- specific analysis by a BLM Authorized Officer (AO) determines that no adverse impacts would be likely to occur and a plan to mitigate potential impacts to water quality is approved. Allow structures that would enhance the protection and management of streams, wetlands, and riparian areas. Approval will be on a case-by-case basis and subject to adequate mitigation of impacts following BLM mitigation policies and Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities. * Controlled Surface Use (CSU) for fluid minerals. Industry position: Not acceptable Reason: 1,320 feet is arbitrary due to the inaccurate use of topography to generate flood plain maps. Many flood plain maps are out of date. Localized topography and site conditions must be taken into account but are ignored with this language. Alternative C is preferred but Alternative A is also acceptable because both alternatives are based on a case-by-case evaluation and conform with WDEQ and Army Corp of Engineers requirements. | A range of alternatives has been analyzed for floodplains, wetlands, riparian areas, perennial and large ephemeral streams in Chapter 2.2.6 management action 1313-1314. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13787-43 | MA #1314 PR-05, PR-11, PR-09 In the JMH planning area, permanent facilities such as tanks and pits are not allowed in 100-year floodplains, wetlands, or riparian areas. However, structures that would enhance the protection and management of 100-year floodplains, wetlands, and riparian areas could be considered. Proposals for linear crossings in these areas would be considered case by case. Industry position: Not applicable Reason: Applicable to JMH. See management action 1313. Industry position: Same as MA #1313 See management action 1313. Industry position: Same as MA #1313 See management action 1313. Industry position: Same as MA #1313 | A range of alternatives has been analyzed for floodplains, wetlands, riparian areas, perennial and large ephemeral streams in Chapter 2.2.6 management action 1313-1314. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water | #13787-44 | MA #1320 PR-07 PR-05 PR-11 No similar action No similar action No similar action Avoid or mitigate, on a case-by-case basis, BLM-authorized activities and infrastructure such as unlined impoundment ponds/pits, reserve pits, and evaporation ponds that could result in the contamination of sensitive water resources, including Source Water | A range of alternatives for BLM-authorized activities and infrastructure has been analyzed in Chapter 2.2.6 management action 1320. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter |

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| Resources (1300-1325) | | Protection Areas identified in Wellhead or Source Water Protection Plans approved local governing bodies and "High" and "Moderately High" sensitivity aquifer systems identified through the use of the Wyoming Groundwater Vulnerability Assessment Handbook or similar document as updated over time. Industry position: Not acceptable Reason: This management action should include 'avoid, minimize or mitigate only NEW activities on a case-by-case basis'. As written, it applies to valid existing facilities. BLM should refer to WDEQ Rules and Regulations and oversite of such programs. Wyoming has primacy for watershed protection, NPDES, stormwater and underground injection control for the protection of such water source in Wyoming. Alternative D must be modified to be acceptable, as provided. | 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13865-1 | a | |
| 803 - Physical Resources-Water Resources (1300-1325) | #13865-7 | 3. Watershed and Water Quality A. MA # 1308 Alternative B of MA #1308 would require "best available modeling" to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies during all surface activities. Proper implementation of sediment and erosion control BMPs, as is the current practice and required under MA #1309, renders this requirement unnecessary. Additionally, Total Dissolved Solids (TDS) and Total Suspended Solid (TSS) modelling for any proposed surface disturbing activity could greatly burden PacifiCorp's O&M activities, potentially delaying responses to emergencies and impacting power reliability to customers. In addition to adding expense and time delays to utility projects, this requirement would also place a burden on the BLM to evaluate the models. The language in Alternative B is also unclear as to the circumstances in which modeling would be required. For example, it could be interpreted to apply to "all surface disturbing activities," which would require modeling in all areas, including where sediment may not reach a water body. Even if the correct intent of Alternative B is only to model in situations where materials would enter water bodies, modeling would likely need to occur for all activities, which is an unnecessary use of utility and agency resources. Because water resource goals can be otherwise and more efficiently achieved through the application of BMPs, PacifiCorp recommends that the BLM adopt Alternatives A or D under MA #1308, requiring no modeling to quantify sediment, salinity or associated nutrients. | A range of alternatives has been analyzed for quantifying sediment, salinity and other nutrients in Water Resources in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13865-8 | B. MA #1309 Alternative B of MA #1309 requires site-specific activity and implementation plans for all surface disturbing activities. This is likely to cause an unsustainable burden on both the BLM and companies with added costs to projects and time delays. In some areas these plans may not be of significant value. Consequently, PacifiCorp recommends that the BLM adopt Alternatives C or D under MA #1309, allowing for site specific activity and implementation plans as appropriate on a case-by-case basis. | A range of alternatives has been analyzed for activity and implementation plans in Water Resources in Chapter 2.2.6 management actions 1309. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13865-9 | Alternative B of MA #1313 would require avoidance of linear crossings within ¼ mile of 100-year (1%) floodplains, wetlands, riparian areas and perennial streams. The design of high-voltage transmission lines typically spans these sensitive water/wetland resources. Creating avoidance areas within ¼ mile would greatly add costs when delineating aquatic resources to determine compliance with this buffer, even if the resources are just spanned. Further, siting power lines to avoid these buffers, even if water resources are not directly impacted, could put other resources at risk due to re-routing, longer routes, and other potential resource impacts. Alternative B could also impede the ability of BCC to fulfill already existing permits and mine lease obligations. PacifiCorp recommends that the BLM adopt Alternatives A or C under MA #1313, as these alternatives consider projects on a case-by-case basis, including linear crossings which would allow for consideration of shorter routes to impact fewer resources. | A range of alternatives has been analyzed for floodplains, wetlands, riparian areas, perennial and large ephemeral streams in Chapter 2.2.6 management action 1313-1314. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13865-10 | D. MA #1324 MA # 1324 would prohibit vehicle and hand application of chemicals within ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status plants under Alternatives B and D. This would severely limit PacifiCorp's ability to perform Integrated Vegetation Management (IVM) on its ROWs (see additional comments under Section 4 "Vegetative Communities and Invasive Species"). Herbicides have been safely used by PacifiCorp near wetland and riparian areas with the BLM's approval for many years. Alternatives B and D would place large restrictions on the areas in which herbicide treatments can be utilized as an effective tool, and could jeopardize PacifiCorp's ability to safely operate its system. PacifiCorp recommends that the BLM adopt Alternative C for MA #1324, as this would allow PacifiCorp to continue its current IVM plan to target non-desirable plant species with the application of herbicides according to their label in proximity to wetlands, riparian areas, and aquatic habitats. | A range of alternatives has been analyzed for herbicide and pesticide loading, maintenance and refueling in Chapter 2.2.6 management action 1324. Application of chemicals are addressed in management actions 4212-4213. Analysis of impacts for actions in each alternative if found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13865-50 | As mentioned above, Alternative B also conflicts with regulatory requirements associated with thermal generation and coal mining. PacifiCorp co-owns and operates the Jim Bridger Power Plant located approximately seven miles north of Point of Rocks in Sweetwater County, Wyoming, which is within the boundaries of the area addressed by the RMP and DEIS. The continued operation of the plant may be negatively impacted by the selection of Alternative B. Increased restrictions outlined in proposed Alternative B addressing soil and geologic resources, water resources, and hydrogeologic investigations could pose difficulty for the plant in complying with requirements of the Environmental Protection Agency's coal combustion residual (CCR) requirements. | A range of alternatives has been analyzed in DEIS in Chapter 2.2.6. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and valid and existing rights. |

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| 803 - Physical Resources-Water Resources (1300-1325) | #13865-57 | o "Control the spread and effects of invasive non-native plant species (Evangelista et al. 2011), including treating weeds prior to surface disturbance and washing vehicles and equipment at designated wash stations when constructing in areas with weed infestations." PacifiCorp routinely washes its vehicles off-site in order to maintain a fleet of clean vehicles and prevent the spread of weed seeds. However, vehicles must travel from commercial wash stations to field sites. Some projects have required on-site vehicle wash stations, and our experience with these facilities has raised concerns. Such wash sites, which are not as efficient as commercial wash stations, can expend water resources that are otherwise limited. During cold temperatures, wash stations can result in icy conditions that pose a safety hazard to those working around them. Consequently, PacifiCorp requests that the BLM allow off-site wash stations to be an acceptable method to prevent the spread of weed seeds. | See Appendix A.1.1 for discussion of when and how Project Design Features and Best Management apply. The referenced section does not imply on-site or off-site. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13904-1 | MA 1302 Alt B Wyoming Land Health Standards are not referenced and should be. It defers consideration of potential grazing adjustments to meet conflicts, if any, with big game parturition, to the permit renewal process. Site specific management with a flexible time frame is correct. Direct management in wetland and riparian areas toward meeting or making progress toward Wyoming Land Health Standards as a minimum. | The language in Management Action 1302 is adequate. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13910-2 | Make NEPA efforts for certain projects easy for wildlife habitat focus, in particular projects such as stabilizing/improving drainages (including intermittent) through projects such as Zeedyke structures. | NEPA for specific projects is outside of the scope of this document, as they are implementation level actions. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13916-1 | MA 1302 Alt B Wyoming Land Health Standards are not referenced and should be. It defers consideration of potential grazing adjustments to meet conflicts, if any, with big game parturition, to the permit renewal process. Site specific management with a flexible time frame is correct. Direct management in wetland and riparian areas toward meeting or making progress toward Wyoming Land Health Standards as a minimum. | The language in Management Action 1302 is adequate. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13923-15 | As described in Management Action #1308, Alternative B will, "Require best available modeling to quantify the amount of sediment, salinity, and associated nutrients that would be transported to water bodies from all surface disturbing activities." Completing this modeling would require significant commitment of resources upfront from the BLM and/or a project proponent. What is the practicality of the BLM monitoring and analysis for soil, for example, when it comes to being able to conduct these surveys, inventory, monitoring, and analysis? | A range of alternatives has been analyzed for quantifying sediment, salinity and other nutrients in Water Resources in Chapter 2.2.6 management actions 1308. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #13925-5 | management actions in Alternative B that purport to regulate air and water quality unlawfully attempt to preempt state programs. BLM lacks any regulatory authority over air or water quality. Congress delegated air and water quality authority to the Environmental Protection Agency, which in turn delegated it to the State of Wyoming or Wyoming Department of Enviornmental Quality (WDEQ). BLM can neither develop new standards or enforce the air or water quality rules. The draft RMP also fails to recognize WDEQ best management practices for nonpoint source water pollution. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies |
| 803 - Physical Resources-Water Resources (1300-1325) | #13925-41 | The alternatives describe 100-year floodplains as closed to permanent facilities. The problem with these management actions is 100 year floodplains are not defined out side of urban areas. And where defined or mapped is subject to challenge as the 100-floodplains are generally inaccurate in description and often illogical when professional surveys are conducted to identify. Alternative B describes an illogical stipulation of no occupancy within 1320 feet as if all floodplains, and does not consider changes in topographic elevation above flood elevations within a zone 1320 feet. The Alternatives need to describe how the 100 year flood plains are identified and how to locate on the ground. Even within urban areas 100- year flood plains are defined by FEMA and are debatable for elevation accuracy. Alternative B would create barriers for linear facilities and eliminate the ability to mitigate with acceptable engineering design Recommend: The 100 year floodplain wetlands and associated wetlands, if defined by FEMA or other authorized agency, are closed to permanent structural facilities and pits. Linear crossings in these areas would be considered on a case by case basis. | A range of alternatives has been analyzed for placement of facilities in 100 year floodplains in Chapter 2.2.6 management action 1313. Analysis of impacts from actions in each alternative is found in Chapter 4 |
| 803 - Physical Resources-Water Resources (1300-1325) | #13925-42 | Alternative B would create ½ mile corridors of riparian types where there can be no treatment to control noxious and invasive species. Numerous noxious weeds and invasive species thrive adjacent to riparian areas, such as Russian olive, tamarisk, white top, Russian knapweed, Canadian thistle, etc. Herbicide technicians are trained to protect water resources during application of herbcides. A combination of the narrative of Alternative A and D is recommended as professional and logical. Currently BLM has not approved Rejuvra (Indaziflam) the latest herbicide to combat cheatgrass, ventenata and medusahead. The combination of Alternative B and no approval of Indaziflam will impact Weed and Pest Districts ability to control noxious weeds and invasive species on public land in Sweetwater County. Recommendation is for the Task Force to seek professional comment from Sweetwater, Unita and Fremont County Weed and Pest Districts. | A range of alternatives has been analyzed for application of chemicals near wetlands, riparian areas, aquatic habitats and special status plants in Chapter 2.2.6 management actions 4212-4213. Analysis of impacts for actions in each alternative if found in Chapter 4. |
| 803 - Physical Resources-Water | #13951-17 | Page 2- 14; Physical Resources #1303 "Management in the planning area would: * Reduce sediment, phosphate, and salinity loads where possible. Measures listed in Appendix A would be applied. * Improve drainage channel resiliency and stability (improvement could include offsite mitigation). * Restore damaged riparian/wetland areas. * | A range of alternatives has been analyzed for water resource management in the planning area in Chapter 2.2.6 management action 1303. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Resources (1300-1325) | | Design riparian exclosures to improve water quality conditions in riparian areas." -Alternative A specifically references the Wyoming Water Quality Rules and Regulations ensuring consistency with Wyoming regulations and maintenance of primacy over water quality. Alternative A also requires that exclosures be designed for "ample water flow for livestock and allow minimum impediments to big game" which I support. | |
| 803 - Physical Resources-Water Resources (1300-1325) | #14023-9 | The Rock Springs District RMP should be driven by a conservation agenda, one that will conserve the best of the unique landscapes, habitats, and native biodiversity it sustains. The RMP should re?ect the District's place in the larger Wyoming landscape; its critical role in providing winter habitat for wildlife that summers tens, if not hundreds of miles to the north. It should also protect, and where and whenever possible enhance habitats for resident wildlife and native plants. It should evaluate, consider, and mitigate how energy development impacts air- and watersheds far removed from the district. It should recognize, respect, and protect the history and locations once utilized by our indigenous ancestors. | A range of alternatives for management of resources in the planning area is found in Chapter 2.2.6. Analysis of impacts for the actions in each of the alternatives is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #14032-5 | The EPA appreciates the presentation of major waterbodies and rivers, and principal aquifers in the BLM planning area found in Appendix A, Map 3-1, as well as the information related to water resources under each alternative presented in Chapter 4.5 of the Draft RMP/EIS. However, the discussions in Chapters 3.4 and 4.5 contain no specific information regarding ephemeral streams. Ephemeral stream systems provide key ecological and hydrological functions by moving water, nutrients, and sediment throughout the watershed. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #14032-6 | EPA further recommends that the Final RMP/EIS provide a more complete description of current water quality conditions for surface water bodies within the planning area and whether BLM management actions under the current RMP have influenced those conditions. The Draft RMP/EIS indicates that the subsurface decision area for fluid minerals under the preferred alternative includes lands containing intermittent, perennial, and ephemeral streams, including approximately 64 miles of impaired streams. We recommend that waterbodies within the planning area including perennial, intermittent and ephemeral water bodies, water body segments classified by the WYDEQ as water quality impaired or threatened under Clean Water Act (CWA) Section 303(d), and water bodies that have not yet been assessed by the WYDEQ for impairment status are clearly identified in the Final EIS/RMP. We recommend that the Final RMP/EIS include a table that identifies the designated uses of water bodies and the specific pollutants of concern, where applicable. Inclusion of this important baseline information about existing water quality conditions is necessary for an accurate evaluation of whether BLM management actions have contributed to the impairments and any other identified water quality issues. This should then inform the development of future management directions. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Executive Summary, chapter 4.2.2 Availability of Data and Incomplete Information, 4.2.3 Analysis Assumptions for adequacy of data and analysis. |
| 803 - Physical Resources-Water Resources (1300-1325) | #14032-7 | The preferred alternative includes MA #1313 stipulation, which prohibits surface disturbing activities and new permanent facilities within ¼ mile of 100-year floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the edge of the inner gorge of large ephemeral drainages (Draft RMP/EIS Appendix B, pp. 12-13). EPA recommends changing the stipulation to apply to all ephemeral drainages, as there is no definition in the RMP for "large ephemeral drainages" and doing so would both ensure protection of ecological and water quality connections and be simpler to apply. Further, cumulative impacts in the vicinity of smaller ephemeral drainages may lead to aggregate impacts that could be equivalent to impacts to a larger drainage. The habitat provided by these types of streams plays a large role in the arid and semi-arid west, making up the majority of water resources and playing essential roles in protecting downstream water quality. | A range of alternatives has been analyzed for placement of facilities in 100 year floodplains in Chapter 2.2.6 management action 1313. Analysis of impacts from actions in each alternative is found in Chapter 4. |
| 803 - Physical Resources-Water Resources (1300-1325) | #14032-8 | We are concerned that Alternative B's stipulations and notices for the protection of water and water- related resources only apply to BLM-administered lands and not to split-estate lands. It is our understanding that BLM operates under many of the same legal requirements on split estate lands as it does on lands wholly owned by the federal government. We recommend applying each lease stipulation and notice to both BLM-administered and split estates and allow for any necessary changes after consultation with surface owners through the standard exception, modification, and waiver procedures. | See Chapter 1.4 Planning Criteria and Chapter 5.1 and 5.1.1 for compliance with applicable laws, and consultation and coordination with other agencies |
| 803 - Physical Resources-Water Resources (1300-1325) | #14032-9 | As identified in the MA #1313 stipulation, surface disturbance is prohibited within ¼ mile of 100- year floodplain. We recommend the Final RMP/EIS utilize one or more of the FFRMS approaches, where applicable, to potentially refine stipulations (e.g., consider whether development should be located outside of the 500-year floodplain), as well as aid in development of the trends analyses of the affected environment sections within the RMP, with consideration of what are the existing and approved developments in 500-year floodplains on the RSFO. As identified in MA #1313, it would be pertinent to evaluate past and future activities within the 500-year floodplain to adequately avoid impacts from extreme weather events. | A range of alternatives has been analyzed for placement of facilities in 100 year floodplains in Chapter 2.2.6 management action 1313. Analysis of impacts from actions in each alternative is found in Chapter 4. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #4026-9 | Chapter 3.22.2 Wilderness Study Areas (WSA). In order for an area to have been designated a WSA, those lands had to have been determined to possess wilderness characteristics. In other words, all WSAs are also LWCs. I have participated in the BLM WSA process since the late 1970s and have been dismayed over the years when politicians sponsored legislation to unilaterally remove WSA status from BLM lands that underwent extensive agency review and public comment. I fully support Alternative B, where if an existing WSA has that status removed, those lands would still be considered LWCs and will subsequently be managed to protect those | A range of alternatives has been analyzed for potential dismissal of Wilderness Study Areas in Chapter 2.2.6, Special Designations - Wilderness Study Area, Management Action 7101. |

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| | | wilderness characteristics. This proposed management falls completely within the guidelines of Chapter 1.6 A of BLM Manual 6310. | |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #4026-19 | Chapter 4.14.1 Lands with Wilderness Characteristics, Assumptions. I recommend an additional assumption be added to this section per language contained in BLM Manual 6310 (Section 1.6.A). This assumption could be worded as: "Regardless of past inventory, the BLM must maintain and update as necessary, its inventory of wilderness resources on public lands. In some circumstances, conditions relating to wilderness characteristics may have changed over time, and an area that was once determined to lack wilderness characteristics may now possess them." | The analysis assumptions listed in 4.14.1 are adequate. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #9853-4 | Lands with Wilderness Characteristics (Pages 2-22 through 2-25) While SVP supports the requirements to maintain lands with wilderness characteristics and particularly alternatives that would prohibit mineral explorations (e.g., Alternative B of MA# 1502), SVP finds most of the alternatives in this entire section (Pages 2-23 through 2-25) to be vague in relation to how the paleontological activities can be carried out. Because paleontological resources commonly occur in such wilderness areas, having no management in those areas as suggested in Alternative C of MA#s 1501-1517 would be problematic. SVP prefers an alternative (e.g., Alternative D where 'Manage for multiple use' is noted) that would allow paleontological inventories/surveys, excavations, and mitigations, that may involve some degree of surface disturbances, on a case-by-case basis. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #10494-6 | In the 1970's BLM, under the direction of Congress, identified all areas with wilderness characteristics worthy of protection and designated them as Wilderness Study Areas. Approximately ten of these WSA's lie within the Rock Springs Management Area and are managed as de facto Wilderness pending any future action by Congress. BLM today should not second-guess the work of their predecessors by attempting to broaden wilderness protections through the designation of Lands with Wilderness Characteristics. | Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13515-5 | Instead of independent (large and small) ACEC management direction, RMEF recommends that specific management treatments and decisions be made at the project level where potential impacts can be better assessed. Special Designation Wilderness designation (Wilderness Areas - WA, Lands with Wilderness Characteristics - LWC, and Wilderness Study Areas - WSA) and ACECs often restrict various active land management activities that are needed to ensure healthy, sustainable landscapes. This concept is embedded in several proposed land use designations. RMEF supports active management on our public lands to benefit wildlife habitat and manage fire risk. Given the current conditions of many public forests and rangelands, RMEF supports planning components that limit additional wilderness and other special designations that limit management. | See Chapter 3.22 of the DEIS for information about special designations in the planning area and Chapter 4 for analysis results from all four alternatives. Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13527-1 | BLM has identified eight areas within the planning area, totaling 63,918 acres, that have been found to have wilderness characteristics, although they are not within wilderness study areas. MOS believes the approach in Alternative B will best protect the wilderness values of these areas. They should be managed so as not to impair their suitability for designation as wilderness. Appropriate guidance appears in BLM's Manual 6330 for Management of Wilderness Study Areas. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. Impacts from each alternative can be found in Chapter 4. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13624-16 | Additionally, the Draft RMP/EIS repeatedly states that BLM will "manage all lands identified as having wilderness characteristics specifically to preserve those characteristics." Draft RMP/EIS, Ch. 2, pp. 2-23 to 2-24. BLM should explain what it means to manage for "wilderness values" as opposed to managing for "wilderness characteristics." Because there is no scientific or regulatory information or explanation differentiating management for wilderness values, wilderness characteristics or lawfully designated wilderness areas - it appears the BLM will manage any portion of the RMP as a wilderness area designated by Congress. Again, BLM does not have the authority to manage areas that are not lawfully designated wilderness in the same manner as lawfully designated wilderness areas. BLM has also failed to identify whether the lands proposed to be managed for "wilderness values or wilderness characteristics" includes acreages that will be impacted by leasing withdrawals. | Text has been updated. See updates to Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for clarification of language. See same section for analysis of a full range of alternatives regarding potential management decisions in these areas. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13624-17 | Management for "wilderness values" also ignores the proper process for designating wilderness areas in accordance with the National Wilderness Preservation System and 16 U.S.C 1131 et al. To designate a wilderness area the Secretary of Interior must make a recommendation to the President that asserts public notice and public hearing or hearings are completed and the Secretary of Interior "advise[d] the Governor of each State and the governing board of each county. . . in which the lands are located, and Federal departments and agencies concerned, and invite such officials and Federal agencies to submit their views on the proposed action at the hearing or by no later than thirty days following the date of the hearing". 16 USC 1132(d)(1). This process was not conducted for the Draft RMP/EIS. BLM should identify the designation process that will be followed to meet these requirements and commit to engaging with the Governor and county commissioners before managing areas within the RMP for "wilderness values". | Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. |

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| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13624-18 | Management for "wilderness values" as proposed in Alternative B also significantly differs from the other proposed alternatives. Under Alternatives, A, C and D, the RMP would be managed in accordance with either the approved Green River RMP (Alternative A), for multiple use (Alternative C), or the area would no longer be subject to management as Wilderness Study Areas (Alternative D). Draft EIS, Ch. 2, p. 2-152. BLM has failed to explain why wilderness management significantly differs among the proposed alternatives and, most importantly, why Alternative B is the preferred management plan for wilderness areas. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13624-19 | Enclosed Map 2 depicts WDEQ's understanding of the proposed Wilderness Study Areas. Wilderness Study Areas identified by BLM as having wilderness characteristics is provided in Map 3. If the lands proposed as having "wilderness characteristics" are managed as wilderness, then access to the Wilderness Study Areas appears to be restricted. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific designations are outside the scope of this DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13748-6 | MA# 1500-1517, Alternative D: We recommend that the BLM manage all Lands with Wilderness Characteristics for multiple use, not preservation. Rationale: We believe these landscapes need active management and are concerned that permittees will not be able to access roads and make necessary improvements if LWCs are managed to preserve their wilderness values. These lands also risk infestation from invasive annual grasses if managed as for wilderness characteristics. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific designations are outside the scope of this DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13751-117 | MA #1502 ALT B Manage as: 1) closed for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing; 4) an exclusion area for all new ROW; 5) pursue withdrawal from mineral location. Industry position: Not acceptable Reason: Section 201 of Federal Land Policy and Management Act (FLPMA) requires the BLM to maintain an inventory of all public lands and their resources and other values, which includes wilderness characteristics. It states that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of public lands. ALT C All lands identified as having wilderness characteristics would not be managed to protect those characteristics. Industry position: Not acceptable Reason: Does not align with PR-13 which would manage lands with wilderness characteristics as appropriate. Should be evaluated on a case-by-case basis. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13784-7 | * MA#1501, Alt B: "Allow motorized travel only for access to state/private parcels." (p.2-23) Comment: MA#1501 will undoubtedly impact livestock grazing permittees from managing their federal grazing permits, prohibit them from using motorized vehicles to load and unload livestock, repair fence, check stock water, or deliver salt and minerals to livestock. Not only will this MA impact livestock grazing permittees, but also recreationist and hunters. BLM will have to close these roads under a travel management plan, because the agency will not have the manpower to ensure compliance of trespass. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific designations are outside the scope of this DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13784-8 | MA#1506, Alt B: "Pursue acquisition of the state parcel." (p.2-23) Comment: Federal grazing permittees who are also grazing lessees on Office of State Lands and Investment sections will certainly have concern regarding the loss of their state leases due to MA#1506. | See DEIS Chapter 2.2.6 section Land Resources - Lands with Wilderness Characteristics, Management Action 1505 and 1506 for a full range of alternatives analyzed regarding parcel WY040-2011-021. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13784-60 | "Managing lands with wilderness characteristics specifically to preserve those characteristics would prevent surface disturbance..." (p. 4-177) Comment: Preventing surface disturbing activities under Alternative B, and according to the BLM would exclude all range improvement projects. This will have significant impacts to the livestock grazing industry by reducing the ability to manage livestock to meet or make progress towards meeting Wyoming Land Health Standards. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. See impacts of other alternatives on Livestock Grazing in sections 4.16.2, 4.16.4, and 4.16.5. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13787-45 | MA #1502 PR-13 No similar action Manage as: 1) closed for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing; 4) an exclusion area for all new ROW; 5) pursue withdrawal from mineral location. Industry position: Not acceptable Reason: Section 201 of Federal Land Policy and Management Act (FLPMA) requires the BLM to maintain an inventory of all public lands and their resources and other values, which includes wilderness characteristics. It states that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of public lands. All lands identified as having wilderness characteristics would not be managed to protect those characteristics. Industry position: Not acceptable Reason: Does not align with PR-13 which would manage lands with wilderness characteristics as appropriate. Should be evaluated on a case-by-case basis. No similar action BLM will manage lands with wilderness characteristics as appropriate and will be evaluated on a case-by-case basis. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Action 1502, for analysis of a full range of alternatives regarding potential management decisions in these areas. Impacts from each alternative can be found in Chapter 4. |
| 804 - Physical Resources-Lands with | #13806-2 | (In reference to management actions 1502-1517). As we stated in the original Citizens' Wilderness Proposal, these wilderness areas are "irreplaceable" and this management should be retained in the final plan so as to not lose this unique resource. I would like to note that while in 1994 we expressed concern over "dirt bikes and off-road vehicle | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by |

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| Wilderness Characteristics (1500-1517) | | use," many of the areas proposed in the preferred alternative as LWCs to be managed for their wilderness characteristics contain two-tracks frequently used by members of the public. I recommend allowing use on existing roads in these areas until travel management planning can occur to allow the public time for comment on which, if any, should remain open, and to prioritize these areas for such planning so as to best preserve their wilderness values (In reference to management action 1501). | alternative. Route specific designations are outside the scope of this DEIS. Impacts from each alternative can be found in Chapter 4. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13845-13 | An accurate, comprehensive inventory of LWCs has not occurred as part of the Rock Springs RMP revision process. The BLM has policy and guidance regarding its obligation to inventory LWCs and consider protection of those values. FLPMA requires the BLM to inventory and consider LWCs during the land use planning process. 43 U.S.C. § 1711(a); see also Ore. Natural Desert Ass'n v. BLM, 625 F.3d 1092, 1122 (9th Cir. 2010). IM 2011-154 and Manuals 6310 and 6320 contain mandatory guidance on implementing this requirement. The guidance directs BLM to "conduct and maintain inventories regarding the presence or absence of wilderness characteristics, and to consider identified lands with wilderness characteristics in land use plans and when analyzing projects under [the National Environmental Policy Act]." This includes the "necessary forms for each area" including photo logs, route analysis forms, and inventory area evaluations (Manual 6310, Appendices A-D). Manual 6310 reiterates that, "[r]egardless of past inventory, the BLM must maintain and update as necessary, its inventory of wilderness resources on public lands." Agency policy also clearly articulates the obligation and protocol for assessing new information regarding LWC inventories when undergoing a land use planning process in addition to when "(t)he BLM has new information concerning resource conditions, including wilderness characteristics information submitted by the public that meets the BLM's minimum standard described in the Wilderness Characteristics Inventory Process section of this policy." (BLM Manual 6310.06(A)). It is the Field Manager's responsibility to "Review and document relevant data, including citizen-submitted information, for conducting and maintaining the wilderness characteristics inventory on a continuing basis." (BLM Manual 6310.04(C).Given this policy guidance, BLM should address and update LWC inventories in the Rock Springs RMP. | A lands with wilderness characteristics inventory was completed for the entire field office as part of this RMP planning effort and can be found on the Project's ePlanning page at https://eplanning.blm.gov/eplanning-ui/project/13853/570. The identified parcels can be seen on Map 3-21 in the DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-4 | B. BLM must complete an updated inventory of lands with wilderness characteristics across the field office to inform the NEPA and planning processes. In compliance with FLPMA, BLM is required to maintain an inventory of LWC on a continuing basis, including during land-use planning, or when the public identifies wilderness characteristics as an issue during a NEPA process or submits new information concerning wilderness resources.25 NEPA also imposes a continuing obligation on agencies to take a hard[...] look at new circumstances or information relevant to environmental impacts of proposed actions.26 Wilderness inventories must be maintained and updated on a continuing basis, and relevant citizen-submitted data is to be evaluated in a timely manner.27 This includes the "necessary forms for each area" including photo log, route analysis forms and inventory area evaluations.28 Manual 6310 reiterates that, "[r]egardless of past inventory, BLM must maintain and update as necessary, its inventory of wilderness resources on public lands."29 It is our understanding that BLM believes it has completed Lands with Wilderness Characteristics inventory that is compliant with Manual 6310. We dispute this understanding, as explained below. | A lands with wilderness characteristics inventory was completed for the entire field office as part of this RMP planning effort and can be found on the Project's ePlanning page at https://eplanning.blm.gov/eplanning-ui/project/13853/570. The identified parcels can be seen on Map 3-21 in the DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-5 | a. RSFO inventory is non-compliant. The Rock Springs draft RMP and EIS are relying on inventories that are non-compliant, outdated, and inaccurate. BLM must reassess and make appropriate changes to its previous inventories, particularly those conducted over a decade ago and before the issuance of Manual 6310. In particular, BLM must assess where on the ground conditions have changed, where previous inventories are not compliant with Manual 6310, and where citizen inventories have pointed out inconsistencies in findings for LWCs or errors with the BLM inventories. Previous comments submitted by our organizations have pointed out the deficiencies in the BLM's inventory, including faulty boundary delineation, improper assessments of naturalness, and arbitrarily narrow interpretations of outstanding opportunities for solitude or primitive and unconfined recreation, for areas including Devil's Playground: Anvil Wash, Twin Buttes Draw, Henry's Fork Hills, WSA Contiguous Unit, and Sage Creek Mountain Badlands; Cedar Mountain North Basin, Dry Creek, North Point, Canyons, and Little Dry Creek; and Southwest Buttes, The Pinnacles, Harris Slough area, and Joe Hay Rim.30Since the BLM's inventory was finalized in 2014, citizens have submitted numerous LWC inventories in the planning area. We dispute BLM's dismissal of these inventories for the same reasons we dispute BLM's own inventory, listed above. | A lands with wilderness characteristics inventory was completed for the entire field office as part of this RMP planning effort and can be found on the Project's ePlanning page at https://eplanning.blm.gov/eplanning-ui/project/13853/570. The identified parcels can be seen on Map 3-21 in the DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-6 | b. Recommended relief for non-compliant BLM inventory. For reassessed previous inventories BLM should clarify how it plans to incorporate new wilderness characteristics information into the Final RMP and EIS. Review and consideration of this inventory should be completed prior to the record of decision (ROD) being published. If the BLM's LWC inventory update cannot be completed and incorporated into this planning process prior to the signing of the ROD, BLM should include language committing to updating the LWC inventory within one year of the completion of the ROD, and committing to deferring any surface disturbing activities, including the issuance of applications for permit to drill (APDs), or mineral leasing, in any identified wilderness inventory unit until the inventory is updated according to BLM Manual 6310. This language would provide the public with necessary assurance that BLM will update required wilderness inventories in a timely manner and ensure that wilderness qualities are not lost prior to the agency completing the inventory process. | A lands with wilderness characteristics inventory was completed for the entire field office as part of this RMP planning effort and can be found on the Project's ePlanning page at https://eplanning.blm.gov/eplanning-ui/project/13853/570. The identified parcels can be seen on Map 3-21 in the DEIS. |

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| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-7 | c. Error in draft RMP regarding units WY040-2011-029 and WY040-2011-030 The BLM recognizes nine units of Lands with Wilderness Character in the draft RMP and EIS: WY040-2011-014 (Dry Hollow Creek), WY040-2011-021 (Teepee Mountain), WY040-2011-027 (Potter Mountain), WY040-2011-029 (Laney Rim), WY040-2011-059 (North Pacific Creek), WY040-2011-062 (Hay Ditch), WY040-2011-069 (Mowing Machine Draw), WY040-2011-074 (Bush Creek), and WY040-2011-088 (Bear Creek Trail). Map 3-21 in the draft RMP appears to make an error-including WY040-2011-030 in the legend. This unit is not listed elsewhere in the document as an LWC inventoried unit recognized by the BLM. Map 3-21 neglects to include WY040-2011-029. It's possible that the legend of Map 3-21 mistakenly identifies WY040-2011- 029 Laney Rim as WY040-2011-030. This error should be fixed in the final RMP. | See updates to Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Action 1509 for change of parcel number listed. Changed WY040-2011-029 to correct parcel, WY040-2011-030. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-8 | C. Lands with wilderness characteristics should be managed to preserve those qualities. Alternative B in the draft RMP would manage all nine units of BLM-inventoried Lands with Wilderness Characteristics to preserve wilderness qualities31. These units would be closed to fluid minerals, mineral material sales/disposal, closed to solid mineral leasing, exclude new Rights-of-Way, and would be included in the proposed solid mineral withdrawal.32 We support these decisions to maintain these wilderness qualities for these important areas and request that motorized travel should be restricted to existing roads within LWC units and these areas should be prioritized for future Travel Management Planning. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. Route specific designations are outside the scope of this DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-9 | These LWC units represent just under 2% of the Field Office, a small fraction of the lands therein, and do not represent the total acreage we believe exists with wilderness qualities. Preserving these wilderness qualities will help achieve President Biden's commitment to protect 30% of our nation's lands and waters by 2030. The success of this 30x30 initiative will hinge on using opportunities like resource management plan revisions to ensure that more acres will be managed to maintain a primarily natural state, where ecological processes take precedence, where wildlife connectivity and intact habitats are prioritized, and where clean air and water resources are protected | Note Chapter 4.21.1, Special Designations. Under all 4 alternatives the acreages designated as Wilderness Study Areas remains the same. 227,960 acres. See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in Lands with Wilderness Characteristics. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-10 | While we support Alternative B's management actions to manage nine LWC units to preserve their character, we maintain that for BLM to achieve a true accounting of wilderness resources in the planning area, updates to the LWC inventory are imperative. BLM must correctly inventory all qualifying lands contiguous to existing WSAs (especially those adjacent to Devil's Playground and Twin Buttes WSAs) and reassess existing inventory units that do not meet the guidance in Manual 6310 (including disqualifying areas because of overly narrow interpretations of naturalness and mistaken identification of two-track routes that were not constructed or maintained using mechanical means) | A lands with wilderness characteristics inventory was completed for the entire field office as part of this RMP planning effort and can be found on the Project's ePlanning page at https://eplanning.blm.gov/eplanning-ui/project/13853/570. The identified parcels can be seen on Map 3-21 in the DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-11 | BLM can and should protect wilderness-quality lands that are encumbered by existing oil and gas leases. Existing leases within the field office must not affect BLM's decision to close areas to new leasing throughout this environmental analysis and should not be used as reasoning to disqualify lands with wilderness character from the inventory or from management to maintain that character. Leases are issued for 10-year terms and frequently expire without being developed. It is unreasonable for BLM to make long-range planning decisions in resource management planning based on short-term resource commitments, like leases. Closing areas to leasing does not impact BLM's ability to manage an existing lease were it to go into development. On the other hand, opening an area to leasing impacts BLM's ability to manage other multiple uses in the area, as seen by discretionary choices to determine lands lacking wilderness qualities because of the existence of oil and gas leases.33 The most reasonable approach is to close areas to leasing that have important and rare natural resources, such as wilderness characteristics, thereby minimizing resource conflicts by preventing additional leasing while existing leases run their course. This approach would also increase decision space over time, enabling BLM to better protect wilderness quality lands and other important resources. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. Impacts from each alternative can be found in Chapter 4 |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13899-12 | BLM should consider conditions of approval to protect wilderness characteristics and other important values in the draft EIS and apply those conditions to existing leases in all inventoried LWC units. | COAs are specific to implementation of fluid mineral activities, which is outside the scope of this land use planning document. See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. Impacts from each of the alternatives can be found in Chapter 4. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13925-9 | FLPMA does not include wilderness as one of the statutory multiple uses. 43 U.S.C. §1702(c). Wilderness has its own definition, which is limited to Section 603. ("(l) The term 'wilderness' as used in section 1782 of this title shall have the same meaning as it does in section 1131(c) of Title 16." §1702(l). A word search of FLPMA shows that the term 'wilderness' is found only in the definition section, 43 U.S.C. §§1702(l) and the wilderness review provisions of Section 603, 43 U.S.C. §1782; 43 C.F.R. §1601.0-5(l).2 Section 603 is the only provision in federal law that authorizes the identification, study and recommendation of public lands for wilderness designation by Congress. Thus, BLM is not at liberty to add wilderness to other provisions in FLPMA when Congress so clearly chose not to. | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. |

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| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #13942-1 | I do not support Management Action 1501 for Lands with Wilderness Characteristics. The existing two tracks are the only way that the public can access some of the Wilderness Study Areas, which are surrounded by LWCs, especially the one south of Honeycomb Buttes. LWS should be managed like ACECs, not for their wilderness character. This will still protect their character and allow active management yet some level of protection. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific designations are outside the scope of this DEIS. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #14022-3 | Under MA#1517 the BLM shouldn't pursue acquisition of state parcels unless approached by the Office of State Lands and Investments. Those lands are key to the lease holders for different uses and might not be compatible with BLM's mission but are compatible with the State's mission. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1516 and 1517, for analysis of a full range of alternatives regarding potential management decisions related to parcel WY040-2011-088. |
| 804 - Physical Resources-Lands with Wilderness Characteristics (1500-1517) | #14023-1 | I recommend that Lands with Wilderness Characteristics (LWC) be managed as Wilderness. * I recommend that WSA and LWC be designated and managed as non-mechanized (non-motorized and no bicycle) areas. | See Chapter 2.2.6 of the DEIS, section Physical Resources - Lands with Wilderness Characteristics, Management Actions 1500-1517, for analysis of a full range of alternatives regarding potential management decisions in these areas. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #356-1 | If rare earth minerals, especially those that are essential to sustain renewable energy initiatives, are discovered within this area, will the BLM consider revising the rules on mineral extraction? Should each Alternative include language that grants exceptions for mineral extraction if it promotes and supports the renewable energy movement? | Management actions for all four alternatives for locatable minerals, which includes rare earth minerals, are identified in the DEIS in management actions 2000-2001 |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #358-1 | For Management Action #2507 under Alternative B to “Allow collection of petrified wood with written authorization only to academic, scientific, governmental, or other qualified institution or individual.”, BLM provides no reasonable basis, methodology, or assumptions used to support this alternative. I support the continued application of 43 CFR 4622 allowing collection of petrified wood for hobby purposes and commercial use on public lands. | This is addressed in Chapter 4 Page 4-156 Section 4.13.3. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #392-1 | Remove management action #2507 from the RMP because there is no analysis in the EIS regarding any of the alternatives. | This is addressed in Chapter 4 Page 4-156 Section 4.13.3. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #544-2 | • I own a patented lode mining claim that is a mere 5 miles from being within the proposed RMP. This historic mining property has known gold values and is within a larger mining district. I worry about the “domino effect” should neighboring BLM field offices adopt similar management plans. I consider this to be a very real possibility since we live in a copy-cat world. Limiting access and limiting mining in the surrounding area will severely devalue my property and my ability to enjoy my property. | Please refer to Chapter 1 for a map and description of the planning area. Decisions outside the planning are beyond the scope of this DEIS. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.4.1. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | This is addressed in Chapter 4 Page 4-18 Section 4.4.1 and more specifically Page 4-22 Section 4.4.3. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #9853-5 | SVP prefers an alternative that would prohibit, or minimally strongly discourage or limit, any forms of mineral resource activities where very high potential for paleontological resources exists, particularly if areas of interest have the Potential Fossil Yield Classification (PFYC) rating of "4" or "5". For any lands of interest, no mineral activity permits should be issued prior to each mineral activity without proper paleontological surveys and any necessary excavations/mitigations by qualified paleontologists, including BLM paleontologists. While 'no mineral activities' is the most preferred option for SVP, we must note that an elaborate plan for best practices for mineral (including oil, gas, and coal) explorations at paleontologically sensitive sites must be in place if alternatives that allow such explorations are selected. We have attached below (Appendix 2) our generic paleontological resources management plan that pertains to energy and mineral activities, including oil and gas explorations. SVP hopes | Management actions for all four alternatives for locatable minerals are identified in the DEIS in management actions 5300-5309 |

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| | | BLM will adopt the suggested best practices in Appendix 2 for the areas of concern in this present case (DOI-BLM-WY-D040-2011-0001-RMP-EIS) in consultation with the bureau's own paleontologists in the region. | |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #13542-53 | Section 3.15.13. Rare Earth Elements. 3-21 What is the reference and date of the statement, "The RSFO is not aware of mining claims, notice or plan level exploration work that are active or under application rare earth elements." as the document does not appear to address how up to date this statement is? | Section 3.15.13 has been updated. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #13787-9 | Similarly, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Further, much of the data in the report is even older. For example, page 5-18 states that "The occurrence of REEs in the RSPA is described in Chapter 3.2.7. There are no known deposits of REE in the RSPA. To date there has been no systematic sampling for or evaluation of REE in the RSPA. However, the WSGS is currently conducting a statewide study, scheduled for completion in mid-2013, to identify, characterize and catalog REE deposits throughout the state." This report and several others related to REEs has been completed and must be incorporated into the RMP for completeness. Finally, as another example, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Page 5-24 states that "Although trona (soda ash) market demand decreased during the global economic slowdown starting in 2008, causing decreased prices and production, the global soda ash industry is showing positive signs of recovery. The 2010 production level at more than 16.5 million tons was up by more than 2 million tons over the 2009 level. In addition, several substantial soda ash price increases have already occurred in 2012. Along with the recovery has come interest by several producers in the possibility of future additional leasing adjacent to existing mines although no firm proposals have been submitted to date. It is expected that during the planning period, current mines or expansions to those mines could accommodate currently projected future demand increases and no new mines will be proposed. However, if the soda ash market undergoes a significant rebound during this time, the situation could change. In addition to new leasing to expand existing mines, new leasing and proposals for in situ recovery could be submitted for BLM consideration." This information is like reading from a history book. The information is outdated on all accounts and must be updated before the RMP can be considered complete or accurate. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #13787-14 | Alternative B would have negative impacts on the uranium industry since it would withdrawal thousands of acres of locatable uranium. In accordance with the General Mining Law of 1872, as amended (30 USC 22 et seq.); 43 CFR Parts 3700 and 3800; and the Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701 et seq.) BLM is obligated to allow and encourage claim holders to develop their claims, subject to restrictions to ensure this development will not cause unnecessary or undue degradation of public lands. Domestic uranium is important to balance variable renewable energy, provide an additional source of clean energy, and reduce reliance on foreign supplies. Pages 4-19, 4-140, 4-174, 4-209 "Under this Alternative A, 556,558 acres would be pursued for withdrawal from locatable mineral entry"; Pages 4-34, 4-23, 4-169, 4-190 4-202, "Under Alternative B, 1,993,908 acres would be pursued for withdrawal from locatable mineral entry"; Pages 4-26, 4-171, 4-211 "Under Alternative C, 234,961 acres would be pursued for withdrawal from locatable mineral entry"; Pages 4-172, 4-190, "Under Alternative D, 482,272 acres would be pursued for withdrawal from locatable mineral entry." According to the BLM Solid Mineral Occurrence and Development Potential Report (August 2012, page 4-13) "Currently there are 132 active lode mining claims for uranium staked on federal lands in the RSPA." (Page 5-12) "The occurrence potential for uranium within the boundary of the Great Divide Mining District is classified as moderate." There is at least moderate potential for these minerals in the RMP area and many have not yet been evaluated. However, it is not well understood by the public that locatable minerals include minerals like uranium, lithium, and rare earths. These are critical minerals to our country, and BLM should not restrict their potential by withdrawing and closing areas in this RMP for their development before we even understanding how critical they are. On November 21, 2022, the Biden Administration announced a major investment to preserve Americas clean nuclear energy infrastructure. The announcement included the following: "America's current fleet of nuclear reactors is a vital resource for achieving the President's goal of 100% clean electricity by 2035 and a net-zero emissions economy by 2050." Further, Executive Order 13990 and the January 27, 2021 Executive Order on Tackling the Climate Crisis at Home and Abroad both call for clean energy and good paying jobs. By withdrawing locatable minerals under all Alternatives of this plan, the U.S. domestic ability to produce uranium, lithium, and potentially rare earth mineral will be impacted. Withdrawal/closure of this resource will negatively impact the ability for energy independence and clean power. | Management actions for all four alternatives for locatable minerals are identified in the DEIS in management actions 5300-5309 |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #13865-19 | D. MA #4424 It is unclear if MA #4424 applies only to fluid minerals or to all surface disturbances, as the language differs between Alternatives B, C, and D. If the intent is to apply a ½ mile buffer around big game migratory corridors for all surface disturbances, this could impact PacifiCorp's ability to operate its system, serve customers, and meet project reclamation requirements. Big game routinely cross underneath power lines and utilize power line ROWs, renewable energy sites, and mine reclamation areas as habitat. BLM has failed to provide supporting evidence that prohibiting surface disturbance will benefit migrating big game. Likewise, "Identify and preserve wildlife species migration and travel corridors" is too vague and could pertain to any number of wildlife species that migrate and travel in corridors, further limiting where surface disturbing activities can occur. If the intent of this MA | See Glossary for a definition of 'surface disturbing activities'. The difference in language among the alternatives in MA 4424 is intentional to apply to different resources and restriction levels. Management actions for all four alternatives for Fish and Wildlife can be found under 4400-4436 in Chapter 2. |

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| | | is towards big game, it should be clarified, and seasonal construction buffers should reflect those identified by the lead agency (WGFD); however, blanket restrictions on surface occupancy for all activities is unreasonable and rather should be evaluated on a case-by-case basis. For these reasons, PacifiCorp recommends that the BLM adopt Alternative A or C for MA #4424. | |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #13865-28 | M. MA #4616 It is unclear how many additional lands would be impacted by mineral lease withdrawals or non-renewals under Alternative B of MA #4616. Under Alternative B of MA #4616, PacifiCorp is concerned that mineral leases would not be re-offered once they expire, which will have significant impacts to BCC, including impacts to operations and fulfilment of existing lease and permit obligations. PacifiCorp recommends that the BLM adopt Alternative D of MA #4616 as it would allow current operations and would be consistent with current permits, regulations, and policies. | Please refer to the Glossary for a definition of 'withdrawal', which applies to general land laws for locatable minerals. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #13899-78 | E. Support for locatable mineral withdrawals and salable mineral closures FLMPA provides the Interior Secretary with broad authority to withdraw public lands from the operation of other laws, including location and entry under the General Mining Law.199 Through the land use planning process, BLM may identify areas - such as ACECs or other areas with conservation management direction - that warrant withdrawal from hardrock mining to protect surface resources or other non-extractive uses and recommend proposed withdrawals.200 We support the withdrawals proposed in Alternative B for ACECs, the National Historic Trails Corridor and big game winter range. The benefits of the proposed withdrawals from mineral entry in Alternative B for protecting ecosystem resilience values is shown in Appendix 1, Figures 10 and 11. The proposed withdrawals in Alternative B would set aside nearly all of the highest value areas for ecosystem resilience in the field office. This decision is clearly aligned with achieving a balanced land-use plan that allows mining in areas with low conflicts but sets aside areas of high natural resource value for the protection of ecosystem resilience. | Management actions for all four alternatives for locatable minerals are identified in the DEIS in management actions 5300-5309 |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-4 | The Preferred Alternative Ignores the Skyrocketing Demand for Minerals to Meet the Administration's Energy and Electrification Goals | Mineral demand is analyzed in the DEIS under Chapter 4.22.1 (Socioeconomics Ch 4.22). See also Appendix E. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-5 | Unwise Mineral Withdrawals Worsen Mineral Import Reliance Under the preferred alternative, approximately 1,993,908 acres would be pursued for withdrawal from locatable mineral entry. The draft RMP/EIS Maps 2-1 and 2-2, copied below, demonstrate vividly the significance of the 258 percent increase in lands proposed for withdrawal under preferred alternative B. The NMA acknowledges that there are federal lands that are appropriately off limits to mining. This nation has many unique and special areas that deserve protection. But given the importance of secure mineral supply chains to every aspect of society, from manufacturing to infrastructure to defense to technological advancements, such decisions must be informed by appropriate analyses, including an assessment of mineral potential, an evaluation of alternatives and an analysis showing that the use or special features of the area cannot be adequately preserved or protected through other means. | Management actions for all four alternatives for locatable minerals are identified in the DEIS in management actions 5300-5309 |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-6 | When it comes to the proposed withdrawals under the preferred alternative B, the NMA believes BLM is making decisions in a vacuum and relying on dated information as to hardrock mineral potential in the planning area. The draft RMP/EIS itself contains very limited information about the mineral potential beyond noting that a mineral potential report "will be completed and used as part of the RMP revision process."43 As BLM prepares the mineral potential report it must keep in mind that while geologic information is critical to finding previously undiscovered resources of minable quality, mineral deposit, geology alone does not dictate whether a deposit can be economically mined. Changes in price, demand, and technology can also factor into whether a deposit can be mined economically. For example, a mining company may have located a deposit that is too low grade to be mined at today's prices but even a small increase in price could change that dynamic. | The economics of mineral demand are addressed in Chapter 4 under 4.22.1 Assumptions. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. The Mineral Potential Report is available on the project's ePlanning webpage. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-7 | While mentioning the need to prepare a future mineral potential report, the draft RMP/EIS also references a 2012 report, Solid Mineral Occurrence and Development Potential Report for the RSFO [Rock Springs Field Office] as providing historical production data for the planning area, and surface use restrictions for the alternatives analysis.46 Much of the information contained in that report is woefully out of date, in contradiction of the BLM Manual 3031, which indicates that "land use plans will reflect geological, energy and mineral values on public lands through more effective geology and energy and mineral resource data assessment. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-8 | For example, the report notes that uranium is one of the locatable minerals that have received the greatest interest in the planning area. While acknowledging that Wyoming had been the nation's leading producer of uranium since 1995 and the existence of uranium resources in the planning area, the report dismisses future development due to depressed uranium prices beginning in 2008 and the 2011 Fukishima Reactor accident in Japan. Fast-forward to 2024 with record high uranium prices and an increased acceptance of nuclear power to address emissions, the administration's strong support for nuclear power at the COP28 Conference and within the Inflation Reduction Act, rapid growth in reactor construction globally and it becomes clear that a new mineral potential assessment of the planning area is needed. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |

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| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-9 | Presumably, the agency relied, in part on the 2012 report and data, to conclude that "currently critical minerals identified through EO 13817 [Executive Order on a Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals] and SO 3359 [Secretarial Order on Critical Mineral Independence and Security] are not being developed. For many of these minerals, deposits are unknown and current development potential is considered low."48 While it is accurate that no critical minerals are currently being developed in the planning area, the conclusion that current development potential is considered low is not. In fact, using the Wyoming State Geological Survey mapping tools, it is possible to overlay the planning area with USGS identification of critical mineral "focus areas" - areas with at least some potential to host critical minerals. This overlay is depicted below and demonstrates that it is too early for conclusory pronouncements about lack of critical minerals potential. | The economics of mineral demand are addressed in Chapter 4 under 4.22.1 Assumptions. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 805 - Mineral Resources-Locatable Minerals (2000-2001) | #14027-10 | the description of total acreage being placed off limits for mining projects under the preferred alternative B does not take into account acres that may be off limits due to sage grouse management.51 This lack of coordination prevents adequate review of the draft RMP/EIS and completely undermines the Appendix T, the cumulative impacts analysis section. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). The RMP will be in compliance with NEPA and FLPMA (Section 1.4). |
| 806 - Mineral Resources– Leasable Minerals– Geothermal (2100-2102) | #142-1 | This area of Wyoming thrives on recreational activities and mineral extraction. Alternative B (Table 1 and throughout the RMP) closes off much of the unleased lands for trona, which will negatively impact both the state and local economies. By greatly limited new lease and surface disturbing activities, new and existing trona mines (and other mineral extractions) will not be able to continue to efficiently extract this natural resource. This will increase the costs of natural soda ash and increase the synthetic soda ash plants that use harsh chemicals to meet the worldwide demand for soda ash. | The economics of mineral demand are addressed in Chapter 4 under 4.22.1 Assumptions. Management actions for all four alternatives are identified for other leasable minerals under 2400 - 2419 in the DEIS. |
| 806 - Mineral Resources– Leasable Minerals– Geothermal (2100-2102) | #250-3 | Within the socioeconomic impact statements, it talks about mineral development. Specifically, this would impact soda ash development. Option B there is 1.8 million acres open and 2.1 million in closed. That means that this option is closing 2 million acres to soda ash development. The KSLA of 1954 grandfathered this in and the development is needed in the state. This is not disclosed in the economic impact. Not to mention the KSLA violation and possible lawsuits that could render from this. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. See also Appendix E for a list of laws, regulations, and policies that apply to this RMP. |
| 806 - Mineral Resources– Leasable Minerals– Geothermal (2100-2102) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1. See also Reclamation Plan in Appendix I. |
| 806 - Mineral Resources– Leasable Minerals– Geothermal (2100-2102) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | See Glossary for a definition of 'surface disturbing activities'. Management actions for all four alternatives are identified for mineral resources under 2000 - 2507 in the DEIS. |
| 806 - Mineral Resources– Leasable Minerals– Geothermal (2100-2102) | #9853-5 | SVP prefers an alternative that would prohibit, or minimally strongly discourage or limit, any forms of mineral resource activities where very high potential for paleontological resources exists, particularly if areas of interest have the Potential Fossil Yield Classification (PFYC) rating of "4" or "5". For any lands of interest, no mineral activity permits should be issued prior to each mineral activity without proper paleontological surveys and any necessary excavations/mitigations by qualified paleontologists, including BLM paleontologists. While 'no mineral activities' is the most preferred option for SVP, we must note that an elaborate plan for best practices for mineral (including oil, gas, and coal) explorations at paleontologically sensitive sites must be in place if alternatives that allow such explorations are selected. We have attached below (Appendix 2) our generic paleontological resources management plan that pertains to energy and mineral activities, including oil and gas explorations. SVP hopes BLM will adopt the suggested best practices in Appendix 2 for the areas of concern in this present case (DOI-BLM-WY-D040-2011-0001-RMP-EIS) in consultation with the bureau's own paleontologists in the region. | Management actions for all four alternatives for locatable minerals are identified in the DEIS in management actions 5300-5309 |
| 806 - Mineral Resources– Leasable Minerals– Geothermal (2100-2102) | #13128-1 | If the mines lost their leases (which to my understanding are protected under the FLMPA act passed by legislation in the 1970's) we would lose a great percentage of our incomes and residents, therefore my job at our school district would be effected from the loss of our tax base and lack of enrollment of our student population. | See Section 1.4 for the Planning Criteria. The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 806 - Mineral Resources– Leasable | #13865-19 | D. MA #4424 It is unclear if MA #4424 applies only to fluid minerals or to all surface disturbances, as the language differs between Alternatives B, C, and D. If the intent is to apply a ½ mile buffer around big game migratory corridors for all surface disturbances, this could impact PacifiCorp's ability to operate its system, serve customers, | The difference in language in MA 4424 among the alternatives is intentional and provides a range of alternatives for management. See Glossary for a definition of 'surface disturbance' and 'surface disturbing activities'. Management actions for all four alternatives for Fish and Wildlife can be found under 4400-4436 in Chapter 2. |

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| Minerals–Geothermal (2100-2102) | | and meet project reclamation requirements. Big game routinely cross underneath power lines and utilize power line ROWs, renewable energy sites, and mine reclamation areas as habitat. BLM has failed to provide supporting evidence that prohibiting surface disturbance will benefit migrating big game. Likewise, "Identify and preserve wildlife species migration and travel corridors" is too vague and could pertain to any number of wildlife species that migrate and travel in corridors, further limiting where surface disturbing activities can occur. If the intent of this MA is towards big game, it should be clarified, and seasonal construction buffers should reflect those identified by the lead agency (WGFD); however, blanket restrictions on surface occupancy for all activities is unreasonable and rather should be evaluated on a case-by-case basis. For these reasons, PacifiCorp recommends that the BLM adopt Alternative A or C for MA #4424. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #47-2 | I further question whether Alternative B is sufficient in terms of preventing or limiting future potential fossil fuel leasing and development. Fossil fuels are clearly harmful, polluting, and the reason why climate change is becoming more deadly. It is imperative that BLM rapidly transition from fossil fuels to clean energy sources. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #65-2 | You also used oil and gas data from over 10yrs ago, so that data is a complete waste. I quick search of active drilling rigs in this area comes to a total of 4 yet you're excluding that number and using the number of lease owners being 85. This is very misleading to the general public. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. Chapter 4.2.2 discloses the unavailability of data. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #317-1 | Accompanying the long-anticipated release of the Rock Springs RMP, the BLM has selected as its preferred alternative one that does not reflect the multiple use mandate in the Federal Land Management and Policy Act (FLPMA). Alternative B, the conservation alternative, would close for fluid leasing 2,186,218 acres of the 3.7 million subsurface acres managed in the field office. It would leave oil and gas development available only where valid existing rights occur, closing every other acre in the field office. Currently, any lands not specifically closed are available for development (as well as every other available use). FLPMA directs that public lands be managed with recognition of the nation's need for domestic sources of minerals2 and has thus identified mineral development as a primary use of public lands. Removing that potential from every acre not already leased is, in effect, a withdrawal of federal lands for a specified purpose, an action which can only be taken by Congress3. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. Impacts to energy and minerals are described in Section 4.11. Withdrawals can be made by the President, the Secretary of the Interior or other authorized Executive branch officers. Specifically 43 USCS § 1714 (a) authorizes the Secretary of the Interior to make modify , extend or revoke withdrawals. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #317-2 | However, expanding development on acreage with valid existing rights is made difficult as Alterative B would also place 2,480,876 acres as exclusion areas for rights-of-way and another 133,903 acres as avoidance. Building the necessary infrastructure to existing leases would be almost impossible across much of the field office. Companies would not be able to get electricity infrastructure built to a site, necessary to run a well; nor would they be able to install distribution pipelines necessary to get product from a site to market. When one continues to add on the additional layers of restrictions and exclusions in Alternative B, developing any new oil and gas resources in this field office will be nearly impossible. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #550-4 | If implemented, Alternative B would have dramatic consequences for businesses in southwestern Wyoming, particularly those supporting oil and gas exploration and production and infrastructure development. Of the 3.7 million acres of mineral estate, currently only about 540,000 acres are closed to oil and gas leasing and 159,000 acres are subject to no surface occupancy stipulation. Alternative B would close almost 2.2 million acres to leasing. Of the remaining 1.5 million acres in the management area, over 800,000 would be subject to no surface occupancy stipulations. In other words, areas open to leasing under standard terms and conditions would decrease from about 3 million acres under current management to about 700,000 acres under Alternative B. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.11. Socioeconomic analysis is in Section 4.22 |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #550-5 | Decisions to close areas to leasing or add no surface occupancy (NSO) stipulations must be justified with a robust evaluation of the unique resource values that may necessitate those designations; the BLM has failed to provide such a justification for such a massive jump in acreage for both designations. In previous RMP amendments, the BLM has gone to great lengths to properly justify these designations and balance them with areas designated with less restrictive lease stipulations or areas otherwise open to leasing. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #5110-1 | Please consider Not Allowing big Oil & Mining anywhere Near this Vital Ecosystem. I urge you to adopt the provisions for the Northern Red Desert and Big Sandy Foothills, especially the proposed ACECs, as swiftly as possible for the benefit of our shared landscapes and communities! | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. |
| 807 - Mineral Resources- | #7537-1 | I believe a decommissioning fee should also be applied so drillers have to clean and reclaim disturbed sites - each one back to the way it was before the surface is disturbed . | Oil and Gas Operations are regulated by 43 CFR 3000 series. |

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| Leasable Minerals–Oil and Gas (2200-2222) | | | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #9721-1 | In general, throughout the document, analysis is based upon practices and information that is outdated. Lessons have been learned as techniques have evolved and data from habitat restoration has been analyzed. Drilling and completion techniques, processes and equipment have been upgraded since the initiation of this project, | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | Impacts on soil resources were analyzed in chapter 4.4. Such determinations are beyond the scope of a LUP. They would be done at the site-specific level. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BMP's considered to determine effectiveness of surface restoration before complete prohibition is considered. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. BMPs are included in Appendix A. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #9774-7 | Instead, we focus on oil and gas development, particularly regarding examining CO2 emissions and contributions to climate change. According to the US Geological Survey (USGS) and US Department of the Interior (DOI), "the CO2 emissions attributed to Federal lands in Wyoming are 57 percent of the total from the Federal lands in all States and offshore areas combined." The figure below visually depicts the amount of CO2 emissions in Wyoming on public land alone. Furthermore, this pie chart draws attention to the fact that the BLM should be pursuing a conservation approach, given the evidence. It should be noted that the BLM considered alternatives to completely close fluid mineral leasing and coal leasing. However, that alternative was eliminated by the BLM as they stated that "this action is not reasonable in light of the BLM's multiple-use mandate outlined in FLPMA or the Mineral Leasing Act of 1920, and is inconsistent with policy objectives." We challenge this reading of the statute. The term "multiple use" means "the management of public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people...the use of some land for less than all of resources...tak[ing] into account the long-term needs of future generations for renewable and nonrenewable resources." As such, multiple-use does not have the narrow definition as defined by the BLM in this draft plan. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #9853-5 | SVP prefers an alternative that would prohibit, or minimally strongly discourage or limit, any forms of mineral resource activities where very high potential for paleontological resources exists, particularly if areas of interest have the Potential Fossil Yield Classification (PFYC) rating of "4" or "5". For any lands of interest, no mineral activity permits should be issued prior to each mineral activity without proper paleontological surveys and any necessary excavations/mitigations by qualified paleontologists, including BLM paleontologists. While 'no mineral activities' is the most preferred option for SVP, we must note that an elaborate plan for best practices for mineral (including oil, gas, and coal) explorations at paleontologically sensitive sites must be in place if alternatives that allow such explorations are selected. We have attached below (Appendix 2) our generic paleontological resources management plan that pertains to energy and mineral activities, including oil and gas explorations. SVP hopes BLM will adopt the suggested best practices in Appendix 2 for the areas of concern in this present case (DOI-BLM-WY-D040-2011-0001-RMP-EIS) in consultation with the bureau's own paleontologists in the region. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #10225-1 | Sweetwater County and the City of Rock Springs subsidies make up a sizeable portion of our budget. We are dependent on these subsidies to provide many essential services to the aging and mobility challenged population as well as the youth of Sweetwater County. The services that Young at Heart provides are the following: Congregate meals for the community having served approximately 6,891 meals in 2022 This year to date we have recorded 10,836 meals. Home delivered meals totaling around 42,000 in 2022, and social entertainment totaling approximately 17,708 hours (pool, poker, card games, and dominoes). We offer In-Home Services which provides light housekeeping and small chores to more than 92 clients in the Rock Springs and Green River areas. Additionally, we provide In-Home Health services assisting more than 15 patients. And finally we have our Early Learning Center providing children with quality education which serves more than 100 families. Therefore reduction in any of these revenue streams would severely impact, if not totally eliminate some of all of these services. In fact, it could force the closure of the Center altogether. Historically and currently mineral extraction is a | Socioeconomic impacts were analyzed in chapter 4.22. |

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| | | mainstay in our local economy. Monies from industrial impacts, mineral severance, sales taxes, etc. flow into the local government budgets to support essential services. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #10225-2 | In addition the oil and gas industry provides income for not only local government but funding for schools. It provides 51% of all property taxes and 80% of all severance taxes. This industry also provides 58,980 jobs in Wyoming alone. | Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #10468-5 | Specifically, an example of impacts not considered from the limitation of further exploration and use of natural gas will inherently lead to limited availability of the resource for use. Limited supply of natural gas, with steady or, inevitably, increased demand will result in higher rates to end customers. The population that suffers the most from higher costs for basic needs, such as heat, electricity and water, are those populations that were identified for study~ those populations in poverty. Uinta County has one of the largest populations in poverty in the State of Wyoming now and this plan will lead to recession of the economy with greater need for government assistance for all basic human dignities and needs. | Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13134-1 | Majority of our educational funds are in direct correlation with the Energy and Mineral Industries. Reducing the Wyoming State Gross Domestic Product by $1billion/year would be detrimental to our state, our educational system would not survive. Decreasing Oil and Gas development by 73% is astronomical. The surrounding Mines, Coal, Oil and Gas Industries are the backbone of our state and cannot be compromised any more than they have been. | Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13153-1 | Not only does “Alternative B” constitute the most restrictive of the agency’s possible alternatives– your agency admits in its Environmental Impact Statement that this alternative creates the largest socioeconomic impact due to reduced mineral development on the 3.6 million acres subject to your control. Under the Multiple Use-Sustained Yield Act of 1960, your agency is required to manage federal lands in accordance with the principles of multiple use and sustained yield. This means that all possible uses and benefits of the lands be treated equally by your agency when promulgating land use plans. Clearly, you and your agency have ignored the deeply enshrined principles of multiple use and sustained yield. “Alternative B” removes over 7,000 animal unit months of grazing, removes over 60,000 acres from any and all use to “protect wilderness characteristics,” and “de-emphasizes recreation” in favor of “conservation of resource values with constraints on resource use.” Your preferred plan withdraws millions of acres from mineral extraction, leasing, exploration, and development. Your plan will obliterate the tax revenue derived from mineral, agricultural, recreation and tourism industries in southwest Wyoming | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13210-6 | 6. No new exclusions or avoidance for fluid mineral development and rights of ways in areas operating under existing and approved record of decision. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.1. Management actions for all four alternatives with regards to Lands and Realty are outlined in MA # 6000-6015. Impacts to Lands and Realty were analyzed in chapter 4.19. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13210-47 | 2202 Alternative B Continue to suspend existing oil and gas leases from development within the Mechanically Mineable Trona Area (MMTA). Close the MMTA (MMTA federal 141,409 acres) for new fluid mineral leasing until the oil and gas resource can be recovered without compromising the safety of the underground miners. Represented industries on the task force agreed that Alternative B best addresses the safety that is needed in the Mechanically Mineable Trona Area by closing the area to fluid mineral leasing until the oil and gas can be recovered without compromising the safety of the underground miners. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13218-1 | I am concerned that Alternative B would have a detrimental effect on Wyoming's energy and mineral industries. Alternative B would substantially decrease the opportunity for oil and gas development, coal development, and other mineral development. Alternative B would close 2,122,282 acres to oil and gas development, 3,735,526 acres to coal development, 2,581,741 acres to mineral material sales and disposals, and 49,224 acres to trona leasing and development within the known sodium leasing area. The acres closed for oil and gas development is a 192% increase compared to Alternative A (the current management standard for the Rock Springs planning area); for coal development, a 433% increase compared to Alternative A; for mineral material sales and disposals, a 209% increase compared to Alternative A; and for trona leasing and development, a 101% increase compared to Alternative A. This is an extreme increase in the number of acres closed compared to Alternative A and this would have the greatest negative impact on solid mineral leasing and development, saleable mineral development, and trona development. | Management actions for all four alternatives with regards to Leasable Minerals for Oil and Gas are outlined in Management Actions 2200-2222. Management actions for all four alternatives with regards to Other Leasable Minerals are outlined in Management Actions 2400-2419. Management actions for all four alternatives with regards to Saleable (Mineral Materials) are outlined in Management Actions 2500-2507. |
| 807 - Mineral Resources-Leasable | #13218-2 | Alternative B also imposes extreme restrictions on the limited areas where energy development is or would be allowed. Alternative B would impose & quote no surface occupancy & quote restrictions on 813,354 acres and impose controlled surface use restrictions on 99,674 acres for fluid mineral development. This would | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. |

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| Minerals–Oil and Gas (2200-2222) | | restrict the area in which development could realistically occur, increase the complexity of mineral operations, slowdown or completely inhibit the production of fluid minerals, and reduce the total number of mineral operations. These restrictions would also reduce the number of federal wells projected over the life of the RMP to 1,292, which is a 73% decrease compared to Alternative A. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13241-1 | Alternative B would have a devasting overall economic impact on Wyoming. Under Alternative B, the estimated economic output is $12.6 billion dollars, the estimated total labor earnings are $2.3 billion dollars, and the estimated total local and state revenues from mineral production is $800 million dollars. This is an extreme decrease from the other alternatives. For example, under Alternative A, the estimated economic output is $29.9 billion dollars, the estimated total labor earnings are $5.4 billion dollars, and the estimated local and state revenues from mineral production is $2.3 billion dollars. The total economic output is 52.3% lower under Alternative B than Alternative A and the total labor earnings are 55.8% lower under Alternative B than Alternative A. In addition, the average annual jobs would also decrease as Alternative B would generate only 2,707 jobs compared to Alternative A generating 6,157 jobs. Most significantly, the total local and state revenues would decrease annually under Alternative B. For example, ad valorem taxes would decrease by 52.4%, severance taxes would decrease by 55.1%, and the state's share of federal mineral royalties would decrease by 52.7%. The total local and state revenues are "52% to 55% lower under Alternative B than Alternative A" and "all quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A." The reduction in revenues for oil and gas development is due to "the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production." I am totally concerned that Alternative B would have a detrimental effect on Wyoming's economy. | Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13330-17 | * Sweetwater County Farm Bureau is opposed to the Alternative B proposed withdrawal of 258% lands from more land from any potential mineral extraction and 305% more lands from oil and gas extraction. Many of our members hold jobs in these sectors to provide supplemental income. Agriculture producers value mineral and oil and gas production in our area. Additionally, such withdrawals would decimate our local economy and the Alternative B proposal directly violates the Domestic Minerals Program Extension Act of 1953, The Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the Energy Policy Act of 2005. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13412-1 | In addition, Alternative B would impose major restrictions along migration corridors. For example, Alternative B would "prohibit surface disturbing activities within ½ mile of big game migration corridors to avoid construction of a current or future identified big game corridors." In contrast, Alternative D would "allow fluid mineral surface occupancy and use within a Wyoming Game and Fish Department designated big game migration corridor if the fluid mineral operator and the BLM arrive at an acceptable conservation plan for avoidance, minimization, rectification and / or restoration within the migration corridor." I am concerned the alternative B is unnecessary and is a compromised approach between mineral development and production and protection of wildlife. | Management actions for all four alternatives with regards to Fish and Wildlife are outlined in Management Actions 4400-4436. Management actions for all four alternatives with regards to the Big Game Migration Corridor ACEC are outlined in Management Actions 7555-7562. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13446-3 | Wyoming is one of the largest energy producers in the nation. The proposed plan effectively undermines the functionality and independence of the nation as a whole by the draconian restrictions set forth in the RPM. Right-of-way controls, regulation of surface disturbance, removal of lease options and controls of existing perimeters cut any sustainable viability for Wyoming's gas and oil production. The reverberations and consequences of such decisions will last for decades and cause more suffering than should be tolerated. (https://www.eia.gov/state/?sid=WY) | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13512-9 | Delete: "This restriction is functionally analogous to the phrase "no surface occupancy" used by the oil and gas program and is applied as an absolute condition to those affected activities." The proposed language is not clear whether temporary surface disturbance would be prohibited within Exclusion Areas. Consistent with longstanding BLM precedent, temporary disturbances must be evaluated separate and apart from permanent disturbances, in particular, when considering visual impacts. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222.<br>This definition refers to the definition of Exclusion Area which is used primarily for ROWs. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13542-28 | MA#2202. Alternative C. 2-28 How will the BLM ensure that the safety of underground miners is not being compromised in the Mechanical Mining Trona Area under Alternative C? | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2202. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13542-52 | Section 3.15.6. Phosphate. 3-19 Reference used for exploration/mining of phosphate is from March 2012. This should be revised to reflect current conditions/status. | The Mineral Potential Report discusses phosphate potential. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |

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| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13585-26 | Under Alternative B, it is projected that a total of 1,292 federal wells would be drilled during the next 20 years (74% decrease compared to Alternative A). The decrease in the number of wells drilled is due to an increase in areas that are closed to fluid mineral leasing and managed with NSO stipulations. Approximately 2,186,218 acres would be closed to new fluid mineral leasing (305% increase compared with Alternative A) and 813,354 acres would be managed as NSO areas (412% increase compared with Alternative A) (Table 2-4, Map 2-6). Much like buffer zones for trail corridors were established in an arbitrary and capricious manner, NSO boundaries, TLS restrictions (more than 700,000 acres), coal closure (3.54 million acres closed which amounts to a coal policy declaration, not a valid resource management planning provision), and the closing of more than 40,000 acres of trona leasing within the KSLA were established in an arbitrary and capricious manner not based on inventory data or monitoring provisions. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13585-27 | In addition, the NSO area boundaries are such that it would not allow access from offsite drilling. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13604-1 | The “Closed to Fluid Mineral Leasing” of Alternative B would increase closed surface acres by 305%. The potential impacts of a 305% decrease in fluid mineral leases could have unknown impacts not only to the state of Wyoming but to the United States. The studies that were performed in 2011 are now far outdated and new economic and socioeconomic evaluations should be performed. For this reason, Alternative B should be discarded as the preferred alternative. | Impacts to energy and minerals were analyzed in chapter 4.11. Socioeconomic impacts were analyzed in chapter 4.22. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13624-34 | Wyoming's Oil and Gas Production Facilities Chapter 6, Section 2 Permitting Guidance On page Q-4, the BLM references a May 2016 revision for this guidance. The DEQ/AQD has updated the guidance and suggests that BLM reference the December 2018 revision. | References have been updated as necessary. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13651-49 | The following statement (page 4-139) is common to all alternatives. BLM should move it to "assumptions." The whole statement should apply to all alternatives. Limiting the placement of structures that visually intrude on the cultural resources could help to preserve and protect settings. What is the difference between archeological and historic resources and other resources when it comes to a consideration to permit fluid mineral extraction? How many acres will be open for permits and how many permits are expected under this alternative. What is the archeological resource density and type in those areas open to permits under this alternative and other alternatives? Allowing opportunities to explore, locate, and develop fluid minerals in the planning area could increase surface disturbing activities, which could expose previously unknown cultural resources to discovery, thereby enhancing scientific knowledge. Surface disturbing activities also have the potential to cause direct and indirect destruction or damage to cultural resources. Surface disturbing activities could impact soil and rock stability and amplify erosion, which could damage or destroy cultural resources and could cause degradation of the setting in which the cultural resource exists. Limiting the placement of structures that visually intrude on the cultural resources could help to preserve and protect settings. Increased human presence could cause unintentional damage to both known and unknown resources through their surface disturbing activities; as well as intentional destruction through vandalism, and the unauthorized removal of structures or artifacts. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.11. Impact to cultural resources are analyzed in chapter 4.12. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13651-50 | The information given says nothing about locations and clustering of cultural resources in relation to that for wells and oil and gas facilities, but it should. How do closures in alternatives relate to current oil and gas developed areas? Similarly the draft EIS does not address road and utility developments (pipelines, power lines) and it should. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to cultural resources are analyzed in chapter 4.12. Road and utility development management actions are found in Land Resources (LR) - Lands and Realty (6000-6015). Impacts to Lands and Realty are analyzed in chapter 4.19. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13658-8 | The RFD for oil and gas that BLM included in the RMP is not reasonable and must be updated. The time periods used for fluid minerals are inappropriately outdated and varied throughout the document. 3.15.1 Leasable Fluid Minerals, page 3-18, refers to the "last 10 years" and then subsequently uses the phase "as of October 2010." WOGCC assumes that BLM is referring to the 10 years prior to the 2013 RFD as no analysis of current conditions appears to have been conducted after that point. This section is deficient as it should include a summary of the current state of leasable fluid minerals including, but not limited to, leased and unleased federal acres, well status, current production, etc. Later in the document, on page 4-255 Table 4-15 is labeled "Historical Annual Wells Drilled, Sublette County, 2000- 2008." The data through 2022 was readily available for inclusion in this Draft RMP and it was inappropriate to not update all the analysis to 2022. | Chapter 4.2.2 discloses the unavailability of data. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |

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| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13658-9 | The Reasonably Foreseeable Development Scenario (RFD) used in this EIS is severely outdated. The analysis itself states, 10 years ago, "It is difficult to predict what will occur a few years into the future, but it is even more difficult to predict 20 years ahead. (Pg 92)" Despite this self-admission by the BLM, the appropriateness of the timeframe for the RFD is not addressed. The BLM simply states that the economic impacts were estimated from 2016-2031 (page N-4) a mere 8 years into the 20 year planning period. It appears the decision to not update the RFD was arbitrary in nature as no discussion appears related to the appropriateness of the RFD or the difference between the RFD and what had actually happened in the 12 years since the RFD was completed. According to WOGCC records oil production in 2022 was approximately 815,000 bbls compared to the RFDs prediction of 4.8 million bbls. Similarly, WOGCC records have approximately 66 BCF of gas production in 2022 compared to the predicted 197 BCF. BLM also appears to have redone the analysis in 2016 leading to changes in the Table with no explanation for the changes. There is no discussion of the vast ROW exclusions of Alternative Bin the RFD. In order for BLM to have articulated a legitimate connection between the facts and their ultimate decision, the underlying facts must be reasonably correct. It is not reasonable to use a twelve-year-old analysis that has already been shown to be completely erroneous. | Impacts to energy and minerals were analyzed in chapter 4.11. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13658-10 | On page 2-3, BLM states that closing the planning area to new leasing of federal minerals, specifically fluid minerals, was considered as a method for resolving conflicts with other resource values and leases. BLM further states that this action is not reasonable in light of the BLM's multiple use mandate outlined in FLPMA and the MLA and is inconsistent with policy objectives. Yet, this is exactly what the agency's preferred alternative is doing. The agency preferred alternative includes significant ROW exclusions, which results in BLM is effectively closing the entire area to new leasing of federal minerals. No operator would lease lands that are physically undevelopable due to the management actions proposed by BLM in Alternative B. With the ROW exclusions, BLM is not only closing federal lands from leasing, but will be significantly impacting state and private lands and also will be effectively eliminating oil and gas development on previously leased but undeveloped federal minerals. The ROW exclusion does so by eliminating the ability of any oil and gas operator to build infrastructure across federal lands where the ROW exclusion is applied. This ROW exclusion in the agency preferred alternative (Alt B) will almost entirely exclude any new ROWs in the north and south areas of the RSFO and will create isolated areas in the checkerboard where infrastructure could be built within an isolated area, but exclusion areas would make it difficult to connect the isolated area to the outside world. These exclusions would eliminate the ability for oil and gas operators to utilize existing rights on currently leased lands and state or private lands because without a road to access the lease or pipelines to move produced oil and gas they cannot drill the well. BLM has created a management scenario that will result in no new leasing of federal minerals and will remove the ability to develop currently leased federal minerals. In their own words this violates BLM's multiple use mandate and is not a reasonable alternative. NEPA requires the analysis of reasonable alternatives and BLM must exclude Alternative Band re-analyze a new alternative in this Draft RMP. Management for preservation purposes is not managing for multiple use when you close all unleased areas to new leasing and ROW. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13658-21 | On page 4-57 and in various other sections throughout the RMP, BLM discusses no surface occupancy (NSO) stipulations for oil and gas leasing. There is no analysis of the negative effects of blanket NSOs. The BLM routinely makes the argument that an operator could produce the resources underlying a parcel from an adjacent state, fee, or existing federal lease. Where this is the case the NSO is not only useless but potentially detrimental. The NSO would only serve to blindly remove lands from the options land managers and operators have to choose from to make the best decision for wildlife or other disturbance sensitive resources. For example, the adjacent parcel open for surface occupancy may have the best habitat or may contain a sensitive species that the BLM parcel with an NSO does not have. Forcing the development on to the adjacent parcel is a less desirable solution, but would be the only option in this scenario. The BLM needs to analyze this effect in Chapter 4 at least under water resources, soil resources, wildlife resources and special status species. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to Oil and Gas are analyzed in chapter 4.11. Impacts to Water Resources are analyzed in chapter 4.5. Impacts to Soil Resources are analyzed in chapter 4.4. Impacts to Wildlife and Fish are analyzed in chapter 4.7. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13658-22 | In section 4.11.1, BLM makes the assumption that surface use restrictions cannot be retroactively applied to valid, existing oil and gas leases or to valid, existing use authorizations, but that post lease actions/authorizations could be encumbered by COAs on a case by case basis. This means that the ROW exclusions proposed in Alternative B will impact valid, existing oil and gas leases rendering them undevelopable and potentially bringing up government takings claims. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13658-23 | The analysis in section 4.11.3 is incomplete. Since BLM erred in its use of an outdated and inaccurate RFD for oil and gas, BLM's evaluation of the impacts of each alternative on energy and minerals is inaccurate and incomplete. BLM's assumption of the number of wells drilled, especially in Alternative B, does not match the last decade of oil and gas activity in this area. BLM is vastly overestimating the wells to be drilled in Alternative B because not only will wells be lost to the acreage closed to future leasing, but acreage will be lost as it becomes undevelopable due to the ROW exclusion. BLM did not estimate the number of wells lost to the ROW exclusion. It only calculated the reduction in acreage available for leasing between the alternatives and then reduced the number of wells drilled by | Impacts to energy and minerals were analyzed in chapter 4.11. |

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| | | the same ratio. No consideration was given for impacts from any other management action. This deficiency must be addressed by BLM. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-2 | BLM's preferred Alternative B unlawfully interferes with various entities' valid existing rights in the Rock Springs planning area, including valid existing oil-and-gas leases held by operators such as Anschutz. BLM's newly proposed restrictive designations (No Surface Occupancy or ROW exclusion zones) across broad swaths of the planning area where oil-and-gas development is already occurring has the potential to cripple existing exploration and production activities, hamstring transportation of product to market, and interfere with day-to-day operations. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-3 | BLM's Draft RMP improperly does not contain sufficient substitution analysis-the analysis by which agencies provide full and complete information on environmental and socioeconomic impacts that would result from obtaining substitute oil and gas from elsewhere, if the production could not occur under the preferred alternative, to meet the public's existing and future energy demands. Although the agency in the Draft EIS boldly identifies the adverse consequences of oil-and-gas development under the development-friendly Alternative C, BLM fails to apply that critical thinking to its preferred Alternative B: it simply does not candidly analyze the true and complete costs of restricting oil-and-gas development under that alternative. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-5 | The United States Geological Survey ("USGS") has identified Southwestern Wyoming as potentially holding one of the largest unconventional hydrocarbons 5 reserves in the Rockies, with an estimated 104 MMBO of oil and 83,575 BCF of gas.4 BLM, however, does not even acknowledge, let alone internalize, the USGS's findings in its analysis, thereby completely-and perhaps even deliberately- brushing aside the fact that the planning area sits on some of the richest hydrocarbon deposits in the United States. If BLM considered even just a fraction of the future development potential in these unconventional reserves beneath the planning area, that would radically change the economic analysis in the Draft RMP and would undoubtedly tip the scales in favor of more development-friendly solutions. | Impacts to energy and minerals were analyzed in chapter 4.11. Assumptions for oil and gas development are contained within the Reasonably Foreseeable Development. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-8 | BLM's Preferred Alternative Violates Other Mining Laws' Mandates to Encourage Mineral Development. The Mineral Leasing Act ("MLA") "was intended to promote wise development of [ ] natural resources and to obtain for the public a reasonable financial return on assets that 'belong' to the public." California Co. v. Udall, 296 F.2d 384, 388 (D.C. Cir. 1961). Enacted in 1920 in the wake of World War I, the MLA demonstrates incontestably that ensuring energy security and spurring economic growth was among Congress's top priorities in passing the law. See, e.g., Arkla Expl. Co. v. Tex. Oil & Gas Corp., 734 F.2d 347, 358 (8th Cir. 1984) ("broad purpose of the MLA was to provide incentives to explore new, unproven oil and gas areas through noncompetitive leasing, while assuring through competitive bidding adequate compensation to the government for leasing in producing areas"); Geosearch, Inc. v. Andrus, 508 F. Supp. 839, 842 (D. Wyo. 1981) ("purpose of the Act is to promote the orderly development of oil and gas deposits in publicly owned lands of the United States through private enterprise"). The MLA authorizes the Department of the Interior to lease public lands "known or believed to contain oil or gas deposits" and requires BLM to hold quarterly lease sales in each state that contains eligible lands. 30 U.S.C §§ 226(a), (b)(1)(A). Indeed, "[t]he public does not benefit from resources that remain undeveloped and the Secretary must administer the [MLA] so as to provide some incentive for development." Udall, 296 F.2d at 388 (emphases added). | Impacts to energy and minerals were analyzed in chapter 4.11. See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-9 | Similarly, in the Mining and Minerals Policy Act of 1970, 30 U.S.C. § 21a, "Congress declare[d] that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in … the orderly and economic development of domestic mineral resources … to help assure satisfaction of industrial, security and environmental needs."5 As such, Congress expressly stated that "[i]t shall be the responsibility of the Secretary of the Interior to carry out this policy when exercising his authority under such programs as may be authorized by law other than this Act." Id. (emphasis added). In other words, BLM (through its authority delegated from the Secretary) must follow this express policy of fostering the development of domestic mineral resources when engaging in land-planning exercises and authorizations under FLPMA and the MLA. BLM's initial description of its preference, Alternative B, does not even acknowledge resource development as one of the agency's primary considerations, let alone one of the priorities set out by Congress. It simply states: "Alternative B emphasizes conservation of resource values with constraints on resource uses. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-15 | The recommendation also indicates that fences and other potential impediments should not be constructed. Id. Overall, as this guidance demonstrates, the Wyoming Game and Fish Department recognizes that oil-and gas development can occur within big-game migration corridors with a few limited restrictions. In managing wildlife habitat, the federal government should defer to the state's management prescriptions. As the D.C. Circuit explained, in enacting FLPMA, Congress "carefully and explicitly" "assigned the states the primary responsibility of management of wildlife programs within their boundaries." Defenders of Wildlife v. Andrus, 627 F.2d 1238, 1248 (D.C. Cir. 1980). | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.11. See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable | #13665-16 | With respect to the Natural Corrals ACEC, under Alternative B, BLM proposes to "retain" the prior 1,110-acre ACEC designation established by the Green River RMP. RMP Draft EIS at 2-191.14 In a change from the prior RMP, however, BLM now proposes to close the Natural Corrals ACEC "to consideration of fluid mineral exploration | Footnote 1 for Table 1. Comparison of Land Use Restrictions and Allocations located in chapter 3 explains the discrepancy in acreages. |

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| Minerals–Oil and Gas (2200-2222) | | and development." Id. But BLM's 14 There is a discrepancy in BLM's characterizations of the total acres included within the Natural Corrals ACEC. Compare RMP Draft EIS at 2-191 (listing 1,110 acres) with id. at 3-28 (listing 1,142 acres). explanation for the change is inadequate. It simply does not express why the protections provided in the Green River RMP are now inadequate to protect the values and resources in the ACEC, requiring BLM to suddenly preclude all oil-and-gas development. See id.; see also id. at C-28-C-29. BLM merely offers the following limp justification: Impacts to wildlife and fisheries from the management of the Natural Corrals ACEC (1,110 acres) would be similar to those described under Alternative A [i.e., the Green River RMP]. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence. Id. at 4-72-4-73. This cursory explanation acknowledges the impacts to "wildlife and fisheries" remain the same and does not even identify the specific species or populations of wildlife that "could" be protected. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-23 | Energy demand in the United States and globally is expected to increase significantly in the coming years. See Energy Information Administration, Annual Energy Outlook (2022).20 If oil and gas cannot be produced efficiently and effectively in the United States, they will have to be imported from abroad, most likely from the OPEC countries that not only lack protective environmental controls but also have been-and continue to be-hostile to American and democratic interests around the world. See DOI-BLM-HQ-3100-2023-0001-EA at 26 (acknowledging that interruptions of domestic oil-and-gas lease sales result in greater dependence on foreign sources that are produced with less-protective environmental measures).21 Importing foreign petroleum also increases global emissions associated with shipping over long distances, risks ocean contamination from spills, increases emissions associated with transporting petroleum from coastal ports to inland destinations, and creates other needless hurdles to providing American consumers with petroleum. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-24 | See 2023-2038 National Outer Continental Shelf Oil and Gas Leasing Program at 212-213.22 By severely reducing the potential for oil-and-gas development in one of the most mineral-rich states in a mineral-rich nation, BLM's favored alternative would constrain domestic oil-and-gas production, hence increasing the United States' and its allies' dependence on foreign sources of oil-and-gas, produced in countries hostile to the United States and with far fewer considerations of environmental or human-rights factors. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-25 | Where such comprehensive and multi-layer processes, including site-specific remedies and mitigation provisions, are clearly available to ensure responsible oil-and-gas development before drilling is authorized, BLM need not-and should not-implement broad-stroke conservation measures and render massive areas of public land off-limits to oil-and-gas development. Doing so reveals that BLM's real motive behind the proposed change is nothing less than to constrict the development of fossil fuel on federal lands. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-26 | BLM states in passing that its preferred alternative could be characterized as "providing the least support to long-standing mining customs and culture in the planning area" and as "fail[ing] to take adequate advantage of the planning area's mineral resources to reduce reliance on foreign energy sources." RMP Draft EIS at 4-262. And that's exactly what Alternative B would do. But to be clear, "long-standing mining customs and culture" is not relegated to "the planning area." Twenty-one of Wyoming's 23 counties produce oil and/or natural gas. See Petroleum Association of Wyoming, Oil and Gas Facts and Figures.25 For over 140 years, mining and oil-and-gas development have sustained Wyoming's economy and the livelihood of its residents. The oil-and-gas industry provides crucial revenue for virtually every public service offered by the state. | Socioeconomic impacts were analyzed in chapter 4.22. Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-27 | In 2022, for example, the oil-and-gas industry was the largest economic driver in Wyoming, generating about $9 billion in economic activity and employing close to 60,000 people. Id. By comparison, the second largest industry in Wyoming that year-travel and tourism-contributed only about $2.5 billion. Id. Wyoming's oil-and-gas industry paid over $5.7 billion in labor income that year. Id. That same year, Wyoming's oil-and-gas industry contributed $2.72 billion to state and local governments in the form of various taxes, royalties, and levies. Id. Around $1.39 billion of that money went to K-12 education, followed by $623 million to the state's general fund and $208 million to public infrastructure. Id. Oil-and-gas production, by itself, accounted for over 40% of the total property taxes levied in Wyoming and nearly 80% of the property taxes levied on all minerals. | Impacts to energy and minerals were analyzed in chapter 4.11. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-28 | Moreover, although Wyoming is also home to many renewable-energy projects, if oil-and-gas production in Wyoming were interrupted, the alternative energy sources that remained would not meet local energy needs. In 2022, renewable-energy sources generated 24% of the electricity in Wyoming, with wind power accounting for more than nine-tenths of this figure | Impacts to energy and minerals were analyzed in chapter 4.11. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil | #13665-31 | Alternative C. On the other, it fails to analyze the true and complete costs of restricting oil-and-gas development under Alternative B. In fact, BLM singles out the oil-and-gas sector and states: "Oil and gas development presents the highest likelihood for impacts within the planning area and in southwest Wyoming as a whole." RMP Draft EIS at T-3. With respect to air-quality impacts, for example, BLM states that "[t]he magnitude of estimated emissions of | Impacts to energy and minerals were analyzed in chapter 4.11. Socioeconomic assumptions were analyzed in chapter 4.22.1 and 4.22.2.. |

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| and Gas (2200-2222) | | air pollutants from BLM authorized activities and management actions is predicted to be greatest under Alternative C[,] which includes the highest level of energy development actions." Id. at 4-6. But "Alternative B, with oil and gas development levels about half of Alternative C, would be expected to result in the least impacts to air quality." Id. Even though the Draft EIS notes-correctly-that BLM's analyses of the social cost of greenhouse-gas production "do not constitute a complete cost-benefit analysis, nor do the SC-GHG numbers present a direct comparison with other impacts," id. at 4-7, it nonetheless identifies the development-friendly Alterative C as having the highest social cost and Alternative B as having the lowest social cost. See id. at 4-9. That is intellectually dishonest. In arriving at that conclusion, BLM has ignored the brute-force socioeconomic impacts that Alternative B would cause. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-32 | Realizing that honest disclosure of the negative impacts that can emanate from importing oil and gas in lieu of domestic production is critical to reasoned decision-making, federal agencies often employ "substitution" analyses in their NEPA review. BOEM, for example, recently pointed out that limiting federal offshore oil-and-gas production would mean that "[t]ankering across the Pacific, [Gulf of Mexico], or Atlantic Regions may increase substantially due to an expected increase in foreign oil imports." See 2023-2038 National Outer Continental Shelf Oil and Gas Leasing Program at 212-13.30 Similarly, in discussing the "no action" alternative to lease sales in another NEPA evaluation, BLM applied substitution analysis in a recent EA prepared specifically to evaluate the greenhouse-gas emissions impacts of oil-and-gas development, and observed that "[c]hoosing the No Action alternative [instead of the development-friendly alternative] would not prevent future leasing" or reduce greenhouse emissions associated with oil-and-gas consumption. See DOI-BLM-HQ-3100-2023-0001-EA at 10.31 BLM found just the opposite: reducing domestic supplies of oiland- gas "would likely lead to the import of more oil and natural gas from other countries, including countries with lower environmental and emission control standards than the United States." Id. at 26. | Assumptions for Air Quality analysis are presented in chapter 4.3.2. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-33 | In other words, BLM acknowledges (and assumes) that under its preferred alternative, oil-and-gas-production could simply shift to state lands. But it does not discuss the full extent, or the environmental and financial consequences-including in the form of diminished revenues and federal royalties-of such a shift. See, e.g., id. at T-15 (acknowledging Draft EIS lacks "a thorough cost-benefit analysis incorporating the social benefits of energy production"). Nor does it acknowledge that it would be beyond BLM's prerogative to implement best-management-practices and shape responsible development if the same oil-and-gas production simply shifted to non-federal lands. | Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-34 | Although BLM candidly acknowledges that Alternative B would severely constrain energy development projects-from both traditional and renewable sources-BLM's rationale for favoring that alternative does not support such a radical departure from current policy. For example, even though "[i]mpacts to wildlife and fisheries habitat from … renewable energy …would be the same as those described under Alternative A," id. at 4-67, Alterative B nonetheless restricts over two-million acres from renewable energy development-four to five times as many as are currently off-limits under Alternative A. See id. at ES-5. But if the "[i]mpacts to wildlife and fisheries" would be largely the same under Alterative B "as described under Alternative A"-the less-restrictive, "no action" alterative-then why close-off hundreds of thousands additional acres just to reach the same environmental outcome? Not only is BLM's "preferred alternative" illogical, but the agency's preference for that alternative is "arbitrary, capricious, an abuse of discretion" or "unsupported by substantial evidence" and therefore violates the Administrative Procedure Act. 5 U.S.C. §§ 706(2)(A), (E) | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to Energy and Minerals were analyzed in chapter 4.11. See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-37 | Since 2000, another federal agency, the United States Geological Survey ("USGS"), has been conducting assessments of unconventional resources in the United States. It has identified Southwestern Wyoming as potentially holding one of the largest unconventional hydrocarbons reserves in the Rockies, with an estimated 104 MMBO of oil and 83,575 BFC of gas. BLM, however, does not even acknowledge, let alone internalize, the USGS's findings in its analysis, thereby completely-and perhaps even deliberately-brushing aside the fact that the planning area sits on some of the richest hydrocarbon deposits in the United States. An "agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (emphasis added and citations omitted). "BLM cannot make informed decisions if it does not consider all relevant information at its disposal." W. Watersheds Project v. Rosenkrance, 2011 U.S. Dist. LEXIS 1288, at *23 (D. Idaho Jan. 5, 2011). Rather than discuss the vast potential for energy security and economic growth that these unconventional deposits hold, BLM bases its "foreseeable" scenario and economic analysis only on the limited, historical development associated with "conventional and coalbed natural gas (CBNG) wells. | Assumptions for Energy and Minerals analysis are presented in chapter 4.11.2. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13665-38 | the benefits of technological advancements in horizontal drilling and hydraulic fracturing, would radically change the economic analysis in the Draft RMP and tip the scales in favor of more development-friendly solutions. The vast energy potential, if unleashed, would additionally economically benefit the State and American taxpayers, as well as enhance the nation's energy independence. Moreover, modern horizontal-drilling and hydraulic-fracturing technology allow larger areas to be developed with far-less overall surface impact (i.e., fewer well locations, facilities, roads, pipelines, etc.) than conventional vertical wells, which are no longer commonly used. Thus, | Impacts to energy and minerals were analyzed in chapter 4.11. Assumptions for Energy and Minerals analysis are presented in chapter 4.11.2. |

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| | | reliance on data from past vertical-well drilling practices fails to account for the environmental benefits of modern development practices. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-3 | 1. BLM's Use of Outdated Data Overstates Impacts of Oil & Gas Development, and Drove Adoption of Unnecessarily Restrictive Conditions. The proposed revisions to the RSFO Resource Management Plan have been in process for more than 12 years. Much of the underlying data and assumptions utilized in the pending Draft Environmental Impact Statement ("DEIS") were gathered early in this process, rendering it outdated and unreliable with the passage of many years. This is particularly true with respect to fluid minerals development. Section 3.15.1 of the DEIS reflects the dated nature of the data; the last drilling/leasing data is from 2010. The BLM's reasonably foreseeable development scenario ("RFD") forecast is a decade old, dating to 2013,1 and based on data from years before the publication date. Section 4.2.2 of the DEIS states that the best available information pertinent to 1 BLM Rock Springs, Field Office, Reasonably Foreseeable Development Scenario for Oil and Gas (September 25, 2013). | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-4 | In other words, BLM based its actions across the range of alternatives on assumed future proposed mineral development for oil and gas. Those assumptions dated from 2013 for a document issued in 2023. This outdated RFD scenario used by BLM in these decisions had been proven entirely mistaken by actual events well prior to the date of the DEIS. Based off 2013 BLM RFD, all analyses in the DEIS were based upon an average of 336 new wells being drilled every year in the RSFO. In fact, only 18 wells were spudded in FY2022. With this actual data, one would reasonably assume 360 wells would be drilled over the 20-year life of the RMP, not the 6,700 wells projected in the RFD. Assuming the 18 wells spudded in FY2022 representation of an annual average, the BLM's outdated projection overestimates oil and natural gas development in the RSFO by 1,867 percent. BLM of course had this data available to it as of the DEIS, but did not use it. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-6 | BLM Failed to Consider Reduced Land Needs Associated With New Drilling Technologies. By using the outdated 2013 RFD as the basis for its management decisions, BLM also erred by failing to recognize that new drilling technologies in the interval have substantially reduced the 2 Executive Summary at 6 (Environmental Consequences). surface disturbance associated with new oil and gas drilling. The RFD assumed that all new drilling within the RFSO would occur on one-well pads, due to the then-speculative nature of use of multi-well pads.3 As technology has developed, multiple wells can be drilled from single pads, and long horizontal laterals mean that far more oil and gas can be extracted from each well.4 The results of the BLM's failure to consider current oil & gas technology existing as of the date of the DEIS is that BLM greatly overstated the surface effects of future oil and gas production, and understated the socioeconomic loss in worker income, business revenues, and state taxes and royalties, from its proposed elimination of millions of acres of public lands from availability for leasing. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-7 | BLM's Proposed Decision to Rely on Full Mineral Withdrawals Over Vast Areas of the RFSO when Equally Protective But Less Restrictive Measures Are Available Violates the Energy Policy Act of 2005. The Energy Policy Act of 2005, as well as the Energy Policy Conservation Act Amendments of 2000 (collectively "EPACT"), that require federal land management agencies to use the least restrictive means necessary to protect other resource values. Blanket closure to a principal use of public lands is not the least restrictive means.5 Similarly, BLM's own Land Use Planning Handbook provides that areas should only be closed to leasing when "other land or resource values cannot be protected with even the most restrictive lease stipulations."6 As discussed in Comment 2, substantial advances in drilling technologies since the date of the RFD have significantly reduced the footprint of oil and gas development, permitting protection of land and resource values while still permitting development of valuable oil and gas resources. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-9 | Under Alternative B, BLM would expand Areas of Critical Environmental Concern ("ACECs") by some 83%, to over 1.7 million acres. Notably, the Greater Red Creek ACEC, currently traversed by EPP's existing MAPL pipeline, would be more than tripled in size, from 131,600 acres to 468,170 acres. Yet the DEIS failed to analyze how development of these areas has impaired any environmental concerns within the area, how proposed limitations on use would affect existing uses, or why the proposed expansions are necessary to protect identified concerns when lesser restrictions would meet the same goals. | Management actions for all four alternatives are identified for Special Designations (SD)-ACECs and can be found in the DEIS from management action 7400-7570. See Appendix C for ACEC evaluation. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-10 | LM's Excessive ROW Avoidance Measures Will Violate Existing Oil & Gas Lessee's Rights to Fully Develop Their Leases. EPP provides natural gas transportation services to producers operating on BLM lands. To the extent that BLM, through denial of necessary rights-of-way to transport production from existing leases, limits future production from existing leases, it has violated those lessee's leasehold rights. The BLM does not have the authority to unilaterally modify existing leases through a resource plan amendment or otherwise infringe on valid existing rights. All BLM actions, including authorization of RMPs, are "subject to valid existing rights." 43 U.S.C. § 1701, note (h); see also Strata Prod. Co. v. Jewell, No. CV 13-205 JCH-GBW, 2014 WL 12789010, at *7 (D.N.M. Aug. 11, 2014) ("The authority of the BLM to take actions in accordance with a plan, however, is "subject to valid existing rights."' (quoting 43 C.F.R. § 1610.5-3(b))). Nor may BLM apply unduly restrictive conditions or stipulations that would significantly impede or impair new or continued development of existing leases and other rights, like instituting restrictive ROW policies which impede a right-holders ability to access and develop their lease. See | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |

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| | | Colorado Environmental Coal., et al., 165 IBLA 221, 228 (2005) (citing Colorado Environmental Coal., 135 IBLA 356, 360 (1996) aff'd, Colorado Environmental Coal. v. Bureau of Land Management, 932 F. Supp. 1247 (D. Colo. 1996)). The BLM erred in failing to consider the impact of ROW exclusion areas on the valid existing right of oil and gas lessees. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13715-12 | MA #7002-7003 (National Historic and Scenic Trails). Alternative B creates a 10 mile wide trail management corridor (5 miles per side) of right-of-way exclusion areas in the general area where the boundaries of Sublette, Lincoln, and Sweetwater counties converge, on the northwest portion of the RFSO, with an additional ROW avoidance area from mile 5 to 15. This is an area of significant and dense existing natural gas production, is currently fully-leased for oil & gas, and includes EPP's existing Bird Canyon compressor station. This is an area not deemed worthy of ACEC or other special status in any alternative. As noted in MA #7002 for Alternative D, BLM and Wyoming SHPO have agreed that the setting of the NHT in the western part of the RSFO has been compromised by existing development, justifying a ¼ mile buffer on each side of the NHT, not the 10 mile ROW exclusion zone (and combined 30 mile exclusion and avoidance zone) proposed in Alternative B. As discussed in Comment #4 above, the elimination of future right-of-way access for transportation of natural gas is an impairment of the leasehold rights of existing oil & gas lessees. In this case, where BLM has agreed with SHPO that existing development justifies only a¼ mile buffer, it is arbitrary and capricious to impose a giant exclusion zone (and co1Tesponding future leasing withdrawal) where the area is a developed field, and where the protective measures proposed in each of the other three alternatives are fully adequate to protect the NHT resource | Management actions for all four alternatives are identified within management actions 7000-7022 titled "Special Designations-Congressionally Designated Trails." Impacts to energy and minerals were analyzed in chapter 4.11. Impact to Rights-of-Way were analyzed in chapter 4.19. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13720-6 | 3.15.1 Leasable Fluid Minerals (U.S. Department of the Interior Bureau of Land Management, 2023) (Page 3-18) The DRMP DEIS reads "There are currently 85 operators producing oil and gas resources in the planning area. As of October 2010, federal oil and gas leases encompass 1,722,313 acres or 60% of the acres available to lease." The Wyoming Oil and Gas Conservation Commission notes 90 operators in Sweetwater County alone (Wyoming Oil and Gas Conservation Commission, 2024), although the BLM Rock Springs Field Office planning area also covers portions of Lincoln, Uinta, Sublette, and Fremont counties. There have been oil and gas lease sales almost every year since 2010, with annual increases of acreage leased. These DRMP DEIS statistics are likely inaccurate and should be updated to reflect current conditions in the planning area. We respectfully request that BLM updates these 14-year-old statistics to reflect recently-available (2023) numbers of oil and gas operators and federal oil and gas lease acreage compared to acres available to lease. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13720-20 | A.2.9 Reducing Impacts from Fluid Mineral Construction, Operation, and Reclamation We respectfully request that the BLM adds the following Best Management Practices to the list in this section: * Leak detection and mitigation * Reclamation should be initiated during the first growing season after disturbance. * Include traffic speed limits on BLM roads servicing fluid mineral development. | Appendix A is not all inclusive and other BMPs may be considered during site specific implementation and analysis. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13751-118 | MA #2202 ALT A No similar action Industry position: Not acceptable Reason: Oil and gas drilling and development within the KSLA is not consistent with Wyoming Oil and Gas Conservation Commission (WOGCC) Rules and may put miners at safety risk. This needs to be updated with current BLM policy/moratoriums and current WY Oil and Gas Conservation Commission Rules. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. ALT B Continue to suspend existing oil and gas leases from development within the Mechanically Mineable Trona Area (MMTA). Close the MMTA (MMTA federal 141,409 acres) for new fluid mineral leasing until the oil and gas can be recovered without compromising the safety of the underground miners. Industry position: Acceptable but should reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. ALT C The MMTA would be managed as a CSU. Recovery of the oil and gas resource must be accomplished without compromising the safety of underground miners or the trona mineral resource. Industry position: Acceptable but should reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA ALT D Existing oil and gas leases are suspended in the MMTA (141,409 surface acres). The MMTA is administratively unavailable for new fluid mineral leasing until the oil and gas resource can be recovered without compromising the safety of the underground miners. Industry position: Acceptable but should reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil | #13754-1 | , the RFD supported the assumptions of impacts for almost every resource analyzed in the DRMP. The BLM states early in the DRMP, as a way of providing context to all alternatives, that "the biggest difference in impacts from the range of alternatives can be derived from looking at the proposed allocations for minerals cited above in Table ES-1."4 However, upon review of recent, actual data on oil and natural gas production in the RSFO, a very different | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |

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| and Gas (2200-2222) | | story emerges. The BLM's own data shows that in FY2022 in the RSFO, 33 Applications for Permits to Drill (APD) were received, 21 approved, 13 are pending, a mere 18 wells were actually spud and only 29 were completed.5 Based off the BLM's 2013 RFD, it was projected and all NEPA analyses were based upon an average of 336 new wells being drilled every year in the RSFO. In fact, only 18 wells were spud in FY2022. With this actual data, one would reasonably assume 360 wells would be drilled over the 20-year life of the RMP, not the 6,700 wells projected in the RFD. The BLM has the data for the number of wells actually spud in the RSFO each year since the 2013 RFD was completed. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13754-2 | it has not considered very important data about the reduction in impacts that the oil and natural gas industry has achieved due to technological advancements, especially since 2011. In the year 2000, over 4,000 wells were spud in Wyoming. The following year (2001), combined oil and natural gas production totaled 327 million barrels of oil equivalent (BOE). In 2019, just over 650 wells were spud, and 2020 production totaled 334 million BOE. Just twenty years later, one sixth as many wells were needed to achieve a roughly equivalent production level, which represents a substantial reduction in land disturbance. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13754-3 | it's important to emphasize that vertical wells, more prevalent in the 2000's, were drilled on single-well pads. Directional and horizontal drilling became more prevalent around 2010 and into the present, allowing for multiple wells per pad. This practice has reduced surface disturbance by as much as 70 percent and allows operators to access lease parcels with no surface occupancy, timing limitation, or conditional surface use stipulations.6 Parcels that would be off-limits to leasing under Alternative B could in fact be responsibly developed since industry practice does not result in the impacts that the BLM assumes. Moreover, through the application of prudently attached lease stipulations rather than the blanket closure to leasing that the BLM envisions, impacts to other natural resources can be further minimized or eliminated altogether. Well count is no longer the single surrogate for inferring surface disturbance. The reduction in the number of pads required to recover the same amount of hydrocarbons is greater than the reduction in well count from 2001 to 2019. The BLM has not adequately accounted for the decrease in surface disturbance from well pads, access roads, power lines, pipelines and other infrastructure created by the transition to horizontal drilling and the resulting reduction in fragmentation. The BLM must reanalyze the impacts from oil and natural gas based on actual wells spud and realistic assessments of today's technologies. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13754-4 | Approximately 24 percent of the oil and 11 percent of the natural gas produced in the United States require authorization through the federal onshore and offshore programs, a significant portion of production in our nation. To stunt their development simply elicits greater reliance on other supply chains to meet demand. On average, 40 percent11 of the oil and gas consumed in the United States comes from international sources. Restricting or eliminating the ability for development within the RSFO will result in some portion of that supply coming from international sources. In that instance, the BLM would have no control or knowledge of the environmental controls and mitigation requirements during production, will have no oversight in the refining process, and will result in longer transportation routes and slower delivery. These factors lead to an outcome in which removing oil and natural gas development in the RSFO results in the worst environmental outcome. Real-world scenarios indicate that allowing domestic oil and natural gas development is the environmentally preferable alternative that also has corollary socio-economic benefits. | Impacts to energy and minerals were analyzed in chapter 4.11. Impacts to socioeconomics were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13754-7 | The BLM does not have the authority to unilaterally modify existing leases through a resource plan amendment or otherwise infringe on valid existing rights. All BLM actions, including authorization of RMPs, are "subject to valid existing rights." 43 U.S.C. § 1701, note (h); see also Strata Prod. Co. v. Jewell, No. CV 13-205 JCH-GBW, 2014 WL 12789010, at *7 (D.N.M. Aug. 11, 2014) ("The authority of the BLM to take actions in accordance with a plan, however, is "subject to valid existing rights."' (quoting 43 C.F.R. § 1610.5-3(b))). In particular, oil and gas leases constitute valid existing rights. E.g., Barlow & Haun, Inc. v. United States, 805 F.3d 1049, 1056 (Fed. Cir. 2015). Federal lessees have a legal right to occupy the surface to explore for, produce and develop oil and natural gas resources on their leases, subject only to the stipulations contained in their lease at the time of issuance. See Pennaco Energy v. United States Dep't of the Interior, 377 F.3 d 1147, 1160 (10th Cir. 2004). Thus, the BLM cannot terminate, modify or alter any valid or existing property rights - such as existing oil and gas leasing rights - or apply unduly restrictive conditions or stipulations that would significantly impede or impair new or continued development of existing leases and other rights, like instituting restrictive ROW policies which impede a right-holders ability to access and develop their lease. See Colorado Environmental Coal., et al., 165 IBLA 221, 228 (2005) (citing Colorado Environmental Coal., 135 IBLA 356, 360 (1996) aff'd, Colorado Environmental Coal. v. Bureau of Land Management, 932 F. Supp. 1247 (D. Colo. 1996)); Mitchell Energy Corp., 68 IBLA 219, 224 (1982) | See Section 4.11.1 for analysis assumptions. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13754-19 | both the Jonah and NPL projects are located in two different field offices. Any inconsistency in management from one field office managing for the ROD and another managing from the ROD and superseding RMP requirements would create significant complications. Both the Jonah Infill Development Project and NPL Development Project have more than adequate NEPA analysis and more importantly significant, and effective, resource protection measures in place. | See Section 4.11.1 for analysis assumptions. Both documents cited apply to a site specific level analysis. |

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| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13783-2 | If is very likely that Wexpro may seek to expand it oil and gas drilling program in the area, including acquisition of new leases. BLM's proposed No Surface Occupancy areas and right-of-way exclusion zones cover much of the existing Vermillion Field and nearly all of the areas where future development might occur. While there not be concrete plans to develop those resources in those expansion areas at this time, the technology and economics may make those areas viable for drilling and production in the future, and BLM's decision to place them off limits for the next 20 years and likely beyond is short-sighted and fails to acknowledge the multiple use values of these public resources. | See Sections 4.11.1 and 4.19.1 for analysis assumptions. Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13783-3 | As explained further below, BLM's implementation of Alternative B in the Draft RMP, while it claims to protect valid existing rights, threatens to severely restrict or make impracticable Wexpro's continued development and possible expansion of the Vermillion Infill Project. Wexpro requests that BLM implement Alternative A or wholly reconsider the proposed alternatives and release a new Draft EA with a proposed alternative that meets BLM's multiple use obligation. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. Impacts to energy and minerals were analyzed in chapter 4.11 |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13783-19 | Proposed Restrictions in Alternative B Violate Valid Existing Rights. Alternative B ignores BLM's legal obligation to propose a multiple-use management plan. Instead, it elevates EO 13990's environmental goals above all economic uses. Closing off half the planning area to oil and gas leasing and designating nearly a quarter as NSO areas puts a halt to economic growth in the planning area. Beyond BLM's restrictions on new oil and gas leases, under Alternative B, BLM's supposed limits on use of the federal surface for the supposed protection of a variety of resources, including soils on steep slopes, floodplains and riparian areas, big game habitats (winter, parturition), visual resources, and cultural and historic sites threaten to substantially curtail or violate valid existing rights. The below map shows BLM's proposed "no leasing" zone (shaded in blue) and the no surface occupancy leasing zone (shaded in red) in relation to Wexpro's Vermillion Field. Strikingly, the entirety of the Vermillion Field falls within one category or the other. And BLM provides zero justification for designating the area that is proposed for NSO. This map is included in the map appendix to allow BLM to view the map details. Individually, any one of these newly restrictive designations (no surface occupancy or right-of-way exclusion zones) is significant, but taken together, they are crippling. Not only do they restrict new uses, but they also severely limit the ability of existing oil and gas lease holders to develop their resources, and go far beyond the "reasonable" surface restrictions permissible under BLM regulation. See 43 C.F.R. § 3101.1-2. Though BLM disclaims any action affecting valid existing rights (Draft EIS at 1-4, 2-2 (Table 2-1)), the inability of leaseholders to build access roads, lay pipelines, or construct transmission will foreclose the economic development of existing rights, as discussed specifically relating to Wexpro's development in Section III.A.2, above. Moreover, BLM's attempt to impose surface use restrictions on existing leases offered without such limitations violates the terms of those existing property rights. In short, BLM oversteps its bounds under its multiple-use mandate and in violation of existing rights in promoting Alternative B, which forecloses economic uses across most of the planning area. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. Impacts to energy and minerals were analyzed in chapter 4.11. Impact to socioeconomics were analyzed in chapter 4.22. See Sections 4.11.1 for analysis assumptions |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13787-46 | MA #2202 MR-02, MR-03 No similar action Industry position: Not acceptable Reason: Oil and gas drilling and development within the KSLA is not consistent with Wyoming Oil and Gas Conservation Commission (WOGCC) Rules and may put miners at safety risk. This needs to be updated with current BLM policy/moratoriums and current WY Oil and Gas Conservation Commission Rules. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. Continue to suspend existing oil and gas leases from development within the Mechanically Mineable Trona Area (MMTA). Close the MMTA (MMTA federal 141,409 acres) for new fluid mineral leasing until the oil and gas can be recovered without compromising the safety of the underground miners. Industry position: Acceptable but should reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. The MMTA would be managed as a CSU. Recovery of the oil and gas resource must be accomplished without compromising the safety of underground miners or the trona mineral resource. Industry position: Acceptable but should reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. Existing oil and gas leases are suspended in the MMTA (141,409 surface acres). The MMTA is administratively unavailable for new fluid mineral leasing until the oil and gas resource can be recovered without compromising the safety of the underground miners. Industry position: Acceptable but should reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. Alternatives B, C, D are acceptable but should be updated to reference the WOGCC Rules that define the trona resource as the Special Sodium Drilling Area by location and by the required protections. The WOGCC Rules are intended to protect miners and the trona resource. The WOGCC Rules go beyond the MMTA area and are more aligned with the entire KSLA. | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |

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| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13793-2 | As you are aware, global demand for clean energy supplies is soaring, led by economic growth and fuel switching in China, Japan, South Korea, Taiwan and India and Europe's push to diversify from embargoed Russian natural gas. Natural gas from western basins in the U.S. can play a key role in meeting those energy needs by providing reliable, cleaner baseload power to displace higher carbon fuels and foster renewable energy deployment by balancing intermittency issues and supporting related supply chains. While WSTN shares the mission of reducing global greenhouse gas (GHG) emissions, our original vision is predicated on the fact that GHG emissions know no national or regional boundaries. When that reality is factored into GHG analyses, it is clear that not all emissions are additive to the global tally - some are reductive. Wyoming's in particular would be reductive if exported to Asian markets to displace coal-fired generation. A 2021 study commissioned by WSTN found that the export of Rockies-sourced liquefied natural gas from the North American West Coast to China, India, Japan, South Korea, and Taiwan would reduce net life cycle emissions by 42%-55% if used to replace coal-fired energy generation in those countries. As you consider alternatives that balance all legally designated uses of federal land in the decision area, WSTN encourages consideration of additional research showing that responsible, well-regulated natural gas production and exports can actually reduce global emissions, as evidenced by the study's findings, available here. | See Section 4.3.2 for assumptions for the air quality analysis. See Appendix P for Air Quality Support Document. P.6.1 identifies Emission Development Assumptions. D471 |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13793-3 | Crucially, the State Department supported language in the 2023 Group of Seven Nations Communiqué which defined LNG's usage going forward to support future energy systems such as hydrogen and decarbonized ammonia. This preceded the inclusion of natural gas in the final language from United Nations Conference of the Parties 28 in 2023 as a fuel for the future, which also included Biden Administration priorities relevant to natural gas: methane abatement and the use of carbon capture and storage to limit emissions. Both of these global decisions recognized the reality that four-fifths of the world's energy comes from natural gas and oil, and that a more pragmatic path to the future requires innovation and technology to help manage the evolution to future energy systems without catastrophic economic and social consequences. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13793-4 | Second, there is no realistic expectation that global and domestic natural gas demand is going away for decades, so the best option is to produce it with as low a methane intensity and as many environmentally responsible practices as possible. The regulatory and environmental requirements for natural gas and oil production on federal lands are the most environmentally advantageous sources for these natural resources. Throttling or outright stopping natural gas production on federal leasing areas will limit the best available product from being exported to meet the growing demand, which will in turn lead to a higher emissions cost. What is sold in the global environment matters because pollution knows no geographical boundaries. It is noteworthy that two Wyoming companies are producing some of the least methane-intense natural gas in the world - at roughly one-tenth the prevailing industry intensity - and are commanding a premium for this. These are precisely this type of operational and technological leaps forward that should be encouraged to help the U.S. in terms of economic, energy and national security. | Impacts to air quality were analyzed in chapter 4.3. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13793-5 | Alternative B would limit the domestic ability to support responsible natural resource development, and it does so predicated on a flawed and out-of-date Reasonable Foreseeable Development analysis. This analysis that overestimates emissions levels drastically by relying on historic levels of production that are barely a tenth of current production. | Impacts to energy and minerals were analyzed in chapter 4.11. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13823-2 | My question would be how reclamation and land improvements are factored into this analysis? This relates to both agricultural grazing and mineral exploration. It seems that the RMP views land use as a near zero sum game. As if every acre of land not being grazed or leased for mineral extraction is then, and only then, available for wildlife. It portrays a scenario in which 100% of leasable land for mineral extraction will be disturbed and therefore removed as a resource for wildlife, ignoring the possibility of reclamation and improvement, which could easily be the standard stipulation of a lease. | Impacts to soil are located in Section 4.4. Impacts to vegetation are located in Section 4.6. Impacts to wildlife are identified in Section 4.7. The assumptions used to build these analyses are contained within their respective sections of the DEIS. Refer to Appendix I entitled "Reclamation Plan" to determine reclamation standards. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13865-19 | D. MA #4424 It is unclear if MA #4424 applies only to fluid minerals or to all surface disturbances, as the language differs between Alternatives B, C, and D. If the intent is to apply a ½ mile buffer around big game migratory corridors for all surface disturbances, this could impact PacifiCorp's ability to operate its system, serve customers, and meet project reclamation requirements. Big game routinely cross underneath power lines and utilize power line ROWs, renewable energy sites, and mine reclamation areas as habitat. BLM has failed to provide supporting evidence that prohibiting surface disturbance will benefit migrating big game. Likewise, "Identify and preserve wildlife species migration and travel corridors" is too vague and could pertain to any number of wildlife species that migrate and travel in corridors, further limiting where surface disturbing activities can occur. If the intent of this MA is towards big game, it should be clarified, and seasonal construction buffers should reflect those identified by the lead agency (WGFD); however, blanket restrictions on surface occupancy for all activities is unreasonable and rather should be evaluated on a case-by-case basis. For these reasons, PacifiCorp recommends that the BLM adopt Alternative A or C for MA #4424. | A range of alternatives are presented in MA#4424. Impacts to energy and minerals were analyzed in chapter 4.11. |

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| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13899-73 | Allowing leasing to occur in the substantial acreage still available in the Preferred Alternative (1,418,592 acres), particularly without adequate bonding will only increase the burden on the public and leave numerous problematic orphaned wells that degrade public lands. | Bonding policy is out of scope for this Resource Management Plan. See Chapter 1.4 for the Planning Criteria. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13899-74 | Speculation on lands with little drilling potential wastes BLM's time and resources (and taxpayer dollars) and locks up public land that should be devoted to uses in the greater public interest. Alternative B would help curb this land speculation | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. Impacts to energy and minerals are analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13899-106 | Any decision not to pursue those fluid mineral closures based on concerns about socio-economic impacts would require BLM to update both the RFD and socio-economic impact analysis. To do so, BLM would need to include actual wells drilled data since 2012 and update the RFD and subsequent socioeconomic impact analysis in the EIS based on updated modeling, such as RFF's. | Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13899-108 | BLM should not depart from the fluid mineral closures in Alternative B based on the flawed socio-economic analysis in the draft RMP and EIS. | Impacts to energy and minerals were analyzed in chapter 4.11. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13911-12 | The BLM recognized during the Rawlins RMP revision process in 2008 that VRM Class II was inappropriate in the Checkerboard and also agreed to revise its VRM Class II classifications to not affect existing leased areas. See Attach. 3, Rawlins Protest Resolution Report Excerpt at pp. 139-142 (Dec. 24, 2008). The VRM designations were remanded after the protest period to reevaluate the designations and complete an updated inventory of the visual resources within the planning area to comply with its own VRM policy. Id. The BLM last completed a visual resource inventory in the planning area in 2009 and 2011. DEIS at 3-17. In addition, the inventory included in the Analysis of the Management Situation ("AMS") that was used in formulating the alternatives was completed in 2013 and has not been updated in response to changing conditions. Id. at ES-1. So, most of the information relied upon by the BLM in designating VRMs is over a decade old. Even with this older data, when you compare Map 3-8 that shows existing federal oil and gas leases to Map 2-18 (Alt. B) and Map 2-20 (Alt. D), it shows that the BLM has designated VRM Class II management in areas with extensive oil and gas leasing that was approved under the Green River RMP. Under IBLA's holding, the VRM Class II would be largely invalid and unenforceable across the planning area. | Management actions for all four alternatives are identified for Heritage and Visual Resources and can be found in the DEIS from management action 5400-5413. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13911-14 | Id. at 4-258 - 4-259. The BLM notes that impact on overall oil and gas development may not be as high as the large reduction in BLM-managed well counts would indicate because development may shift from the federal surface and mineral estates to non-federal surface and mineral estates. Id. at 4-259. However, this statement fails to recognize that development on private and state lands is unlikely to proceed, especially in the Checkerboard and on intermingled private and state lands, where ROWs across federal lands are necessary for development to occur. In addition, closure of so many areas to development could also adversely impact development of existing leases when the play or unit area is not fully leased and will never be fully leased due to Preferred Alternative B's proposed closures. | Impacts to energy and minerals were analyzed in chapter 4.11. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13923-14 | We recognize the importance of responsible resource development across the RSFO and encourage the BLM to direct oil and gas leasing to areas with moderate to high potential. Removing or avoiding leasing from areas of low potential will direct agency resources to areas 12 with actual development potential and reduce conflict in areas without potential. | Management actions for all four alternatives are identified for Leasable Minerals – Oil and Gas and can be found in the DEIS from management action 2200-2222. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13925-10 | The Mineral Leasing Act is a public land law that provides for the orderly sale of the rights to develop oil and gas on public lands. Any decision of BLM to withhold public lands from sale under the Mineral Leasing Act to protect resources falls squarely within the definition of a withdrawal under FLPMA. The Wyoming district court has twice concluded that Forest Service leasing moratoria, which were enforced by BLM, must comply with Section 204 procedures. Mountain States Legal Foundation v. Andrus, 499 F. Supp. 383 (D. Wyo 1980) ("MSLF I") (deferring action on mineral lease applications pending RARE II violated §204); and Mountain States Legal Foundation v. Hodel, 668 F. Supp. 1466 (D. Wyo. 1987) ("MSLF II") (deferring mineral lease applications pending completion of | See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |

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| | | EIS and land use plans violated Section 204). The United States never appealed either decision and instead proceeded to process the pending lease applications. BLM contends its discretion to offer a parcel for leasing overrides Section 204, citing Bob Marshall Alliance v. Hodel, 852 F2d 1223, 1229-30 (9th Cir. 1988) and Ash Creek Mining, Co. v. Lujan, 969 F.2d 868, 874-875 (10th Cir. 1992) (company could not show judicial relief would redress injury, because Interior cannot be compelled to offer tract of land for lease sale). Both cases involved an individual tract of land that was not offered for a lease sale, not a programmatic decision to withhold public lands from energy development. It is clear that in Wyoming, BLM must follow Section 204 procedures. | |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13925-43 | Alternative B describes a management prescription where 3,813,000 acres is closed to leasing or if leased subject to no surface occupancy and sever timing limitations. Alternative B requires a social economic analysis of the impact to Sweetwater County and Wyoming before it is adopted. Alternative B describes the elimination of a viable and environmentally responsible industry and major program of the BLM.. The management action includes the criteria of "Exceptions would not be granted ", this illustrates a lack of expertise and knowledge of the authors and BLM leadership. Resource management is imperfect and to tie the hands of future resource managers to resolve unintended consequences is irresponsible, and counter to generations of BLM resource plans. The terminology of Alternative A should be incorporated into the Preferred Alternative, otherwise Alternative B is a demonstration of ignoring the Mineral Leasing Act. | Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. See DEIS Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13927-2 | When considering the effects of energy development in the GLMA, it is important to recognize that land ownership patterns could exacerbate fish and wildlife impacts from oil and gas development by focusing infrastructure on stream valley locations. Should No Surface Occupancy (NSO) stipulations be implemented on BLM lands, accessing underlying oil and gas resources would require directional drilling from State and private lands, which are predominantly located along streams (Figure 1). These valley bottoms and riparian zones are highly sensitive to surface disturbances, while also being rich habitat for both native trout and wildlife. For instance, the CRCT population in Currant Creek is almost entirely located on state lands where infrastructure would have to be located in order to potentially access nearby federal minerals. | See MA# 0006 and 0007. Impacts to wildlife and fisheries are described in chapter 4.7. Impacts to water resources are described in chapter 4.3. Impacts to energy and minerals were analyzed in chapter 4.11. Se Appendix T.1.1 for analysis methodology and assumptions. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13955-1 | According to the most recent report from the 2022 Bureau of Economic Analysis Report on Outdoor Recreation, "Wyoming outdoor recreation employment increased from 15,285 to 16,202 jobs, accounting for 5.6% of the state's total employment." Wyoming's outdoor recreation economy increased to $2.02 billion according to the U.S. Department of Commerce's Bureau of Economic Analysis. According to the Bureau of Economic Analysis, in 2022 Wyoming's top three industries are oil and gas at $8.99 billion, $2.5 billion for travel and tourism, $1.12 billion for agriculture, and $5.7 Billion in labor income for oil and gas1 The data also shows that $1.712 billion in Wyoming is generated from agriculture and a total of 58,780 jobs for oil and gas. Oil and gas is also the leading industry in Wyoming producing $2.72 billion. The ACEC designations and Alternatives B and D would greatly hinder the economic opportunities throughout the state. Recreation alone is nationally a trillion dollar a year industry and any alternative other than Alternative C would deprive Wyoming from capitalizing on this growing industry. | Management actions for all four alternatives with regards to Recreation are outlined in Management Actions 6500-6557. Recreation impacts were analyzed in chapter 4.17. Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #13955-2 | According to the most recent report from the 2022 Bureau of Economic Analysis Report on Outdoor Recreation, "Wyoming outdoor recreation employment increased from 15,285 to 16,202 jobs, accounting for 5.6% of the state's total employment." Wyoming's outdoor recreation economy increased to $2.02 billion according to the U.S. Department of Commerce's Bureau of Economic Analysis. According to the Bureau of Economic Analysis, in 2022 Wyoming's top three industries are oil and gas at $8.99 billion, $2.5 billion for travel and tourism, $1.12 billion for agriculture, and $5.7 Billion in labor income for oil and gas1 The data also shows that $1.712 billion in Wyoming is generated from agriculture and a total of 58,780 jobs for oil and gas. Oil and gas is also the leading industry in Wyoming producing $2.72 billion. The ACEC designations and Alternatives B and D would greatly hinder the economic opportunities throughout the state. Recreation alone is nationally a trillion dollar a year industry and any alternative other than Alternative C would deprive Wyoming from capitalizing on this growing industry. | Management actions for all four alternatives with regards to Socioeconomic Resources are outlined in Management Actions 8000-8012. Socioeconomic impacts were analyzed in chapter 4.22. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #14022-2 | SCCD is discouraged that the BLM wouldn't utilize the most current and relevant rangeland monitoring data that has been collected in the RSFO for this RMP revision. SCCD has been a part of several cooperative monitoring efforts in the RSFO and has compiled and summarized the data and sent it to the RSFO to be filed in the appropriate allotment files. SCCD has also worked cooperatively with grazing permittees, oil and gas operators, and BLM to conduct inventories associated with the Normally Pressurized Lance gas field as well as portions of the Jonah field. This data appears to have not been utilized and discounts the combined efforts of local BLM staff, SCCD staff, and users of BLM lands that have helped in the above efforts. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. Management actions for all four alternatives with regards to Livestock Grazing Management are outlined in Management Actions 6400-6417. |
| 807 - Mineral Resources-Leasable Minerals–Oil and Gas (2200-2222) | #14100-1 | The new plan should prioritize development away from areas critical to wildlife by closing areas that contain low oil and gas potential to future leasing opportunities, while maintaining public access. | Impacts to wildlife were analyzed in chapter 4.7. |
| 809 - Mineral Resources- | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as | This is addressed in Chapter 4 Page 4-18 Section 4.4.1. |

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| Other Leasable Minerals (2400-2419) | | difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | Management actions for all four alternatives are identified for mineral resources under 2400 - 2419 in the DEIS. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #9853-5 | SVP prefers an alternative that would prohibit, or minimally strongly discourage or limit, any forms of mineral resource activities where very high potential for paleontological resources exists, particularly if areas of interest have the Potential Fossil Yield Classification (PFYC) rating of "4" or "5". For any lands of interest, no mineral activity permits should be issued prior to each mineral activity without proper paleontological surveys and any necessary excavations/mitigations by qualified paleontologists, including BLM paleontologists. While 'no mineral activities' is the most preferred option for SVP, we must note that an elaborate plan for best practices for mineral (including oil, gas, and coal) explorations at paleontologically sensitive sites must be in place if alternatives that allow such explorations are selected. We have attached below (Appendix 2) our generic paleontological resources management plan that pertains to energy and mineral activities, including oil and gas explorations. SVP hopes BLM will adopt the suggested best practices in Appendix 2 for the areas of concern in this present case (DOI-BLM-WY-D040-2011-0001-RMP-EIS) in consultation with the bureau's own paleontologists in the region. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419 |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #10225-1 | Sweetwater County and the City of Rock Springs subsidies make up a sizeable portion of our budget. We are dependent on these subsidies to provide many essential services to the aging and mobility challenged population as well as the youth of Sweetwater County. The services that Young at Heart provides are the following: Congregate meals for the community having served approximately 6,891 meals in 2022 This year to date we have recorded 10,836 meals. Home delivered meals totaling around 42,000 in 2022, and social entertainment totaling approximately 17,708 hours (pool, poker, card games, and dominoes). We offer In-Home Services which provides light housekeeping and small chores to more than 92 clients in the Rock Springs and Green River areas. Additionally, we provide In-Home Health services assisting more than 15 patients. And finally we have our Early Learning Center providing children with quality education which serves more than 100 families. Therefore reduction in any of these revenue streams would severely impact, if not totally eliminate some of all of these services. In fact, it could force the closure of the Center altogether. Historically and currently mineral extraction is a mainstay in our local economy. Monies from industrial impacts, mineral severance, sales taxes, etc. flow into the local government budgets to support essential services. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13132-1 | There are many beds or layers of Trona though out Sweetwater County and it is the largest natural deposit of Trona in the world. If there were new restrictions put on trona mines, that would mean the eventual shutdown of the trona mines due to decreased production. This would hurt many families in Uinta County, Lincoln County, and Sweetwater County specifically, but statewide as well. Our livelihood depends on the mining industry, and they cannot afford any more restrictions. This will not only have a lasting impact financially on my family, but the city economy, the state economy, and the country altogether. Trona is a great resource and is used in many things; such as baking soda, glass, and fertilizer. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. The effects of management restrictions on Energy and Minerals are analyzed in Chapter 4 under 4.11.1. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13134-1 | Majority of our educational funds are in direct correlation with the Energy and Mineral Industries. Reducing the Wyoming State Gross Domestic Product by $1billion/year would be detrimental to our state, our educational system would not survive. Decreasing Oil and Gas development by 73% is astronomical. The surrounding Mines, Coal, Oil and Gas Industries are the backbone of our state and cannot be compromised any more than they have been. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13137-1 | If there were new restrictions put on trona leases, that would mean the eventual shutdown of the trona mines due to decreased production. This would hurt many families in Uinta, Lincoln, and Sweetwater Counties specifically, but statewide as well. Our livelihood depends on the mining industry, and they cannot afford any more restrictions. This will not only have a lasting impact financially on my family, but the city economy, the state economy, and the country altogether. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809 - Mineral Resources-Other Leasable | #13153-1 | Not only does “Alternative B” constitute the most restrictive of the agency’s possible alternatives– your agency admits in its Environmental Impact Statement that this alternative creates the largest socioeconomic impact due to reduced mineral development on the 3.6 million acres subject to your control. Under the Multiple Use-Sustained Yield Act of 1960, your agency is required to manage federal lands in accordance with the principles of multiple use and sustained yield. This means that all possible uses and benefits of the lands be treated equally by your agency when promulgating land use plans. Clearly, you and your agency have ignored the deeply enshrined | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). Also, please refer to the Glossary for a definition of withdrawal. |

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| Minerals (2400-2419) | | principles of multiple use and sustained yield. “Alternative B” removes over 7,000 animal unit months of grazing, removes over 60,000 acres from any and all use to “protect wilderness characteristics,” and “de-emphasizes recreation” in favor of “conservation of resource values with constraints on resource use.” Your preferred plan withdraws millions of acres from mineral extraction, leasing, exploration, and development. Your plan will obliterate the tax revenue derived from mineral, agricultural, recreation and tourism industries in southwest Wyoming | |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13218-1 | I am concerned that Alternative B would have a detrimental effect on Wyoming's energy and mineral industries. Alternative B would substantially decrease the opportunity for oil and gas development, coal development, and other mineral development. Alternative B would close 2,122,282 acres to oil and gas development, 3,735,526 acres to coal development, 2,581,741 acres to mineral material sales and disposals, and 49,224 acres to trona leasing and development within the known sodium leasing area. The acres closed for oil and gas development is a 192% increase compared to Alternative A (the current management standard for the Rock Springs planning area); for coal development, a 433% increase compared to Alternative A; for mineral material sales and disposals, a 209% increase compared to Alternative A; and for trona leasing and development, a 101% increase compared to Alternative A. This is an extreme increase in the number of acres closed compared to Alternative A and this would have the greatest negative impact on solid mineral leasing and development, saleable mineral development, and trona development. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419 |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13241-1 | Alternative B would have a devasting overall economic impact on Wyoming. Under Alternative B, the estimated economic output is $12.6 billion dollars, the estimated total labor earnings are $2.3 billion dollars, and the estimated total local and state revenues from mineral production is $800 million dollars. This is an extreme decrease from the other alternatives. For example, under Alternative A, the estimated economic output is $29.9 billion dollars, the estimated total labor earnings are $5.4 billion dollars, and the estimated local and state revenues from mineral production is $2.3 billion dollars. The total economic output is 52.3% lower under Alternative B than Alternative A and the total labor earnings are 55.8% lower under Alternative B than Alternative A. In addition, the average annual jobs would also decrease as Alternative B would generate only 2,707 jobs compared to Alternative A generating 6,157 jobs. Most significantly, the total local and state revenues would decrease annually under Alternative B. For example, ad valorem taxes would decrease by 52.4%, severance taxes would decrease by 55.1%, and the state's share of federal mineral royalties would decrease by 52.7%. The total local and state revenues are "52% to 55% lower under Alternative B than Alternative A" and "all quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A." The reduction in revenues for oil and gas development is due to "the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production." I am totally concerned that Alternative B would have a detrimental effect on Wyoming's economy. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13330-17 | * Sweetwater County Farm Bureau is opposed to the Alternative B proposed withdrawal of 258% lands from more land from any potential mineral extraction and 305% more lands from oil and gas extraction. Many of our members hold jobs in these sectors to provide supplemental income. Agriculture producers value mineral and oil and gas production in our area. Additionally, such withdrawals would decimate our local economy and the Alternative B proposal directly violates the Domestic Minerals Program Extension Act of 1953, The Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the Energy Policy Act of 2005. | Please refer to the Glossary for a definition of 'withdrawal', which does not apply to fluid mineral leasing, solid mineral leasing, or mineral material sales (only General Land Laws such as the 1872 Mining Law). Please refer to the proposed management actions for all four alternatives that are described in Table 2.1. Expected impacts from each of the four alternatives can be found in Chapter 4. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13446-3 | Wyoming is one of the largest energy producers in the nation. The proposed plan effectively undermines the functionality and independence of the nation as a whole by the draconian restrictions set forth in the RPM. Right-of-way controls, regulation of surface disturbance, removal of lease options and controls of existing perimeters cut any sustainable viability for Wyoming’s gas and oil production. The reverberations and consequences of such decisions will last for decades and cause more suffering than should be tolerated. (https://www.eia.gov/state/?sid=WY) | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. The effects of management restrictions on Energy and Minerals are analyzed in Chapter 4 under 4.11.1. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13512-2 | Wyoming's natural soda ash, the largest source in the world, is the essential ingredient for many day-to-day items like glass, detergents, food products, and numerous household goods, along with products prioritized by both domestic and international markets, namely multiple types of EV batteries and photovoltaic solar panels. Soda ash is Wyoming's top export, and in 2022, soda ash production in Wyoming was 18,482,320 tons and employed 2,363 people.3 Even with existing production, it will take the development of several new projects like Project West to meet growing demand. | The economics of mineral demand are addressed in Chapter 4 under 4.22.1 Assumptions. Management actions for all four alternatives are identified for other leasable minerals under 2400 - 2419 in the DEIS. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13665-9 | Similarly, in the Mining and Minerals Policy Act of 1970, 30 U.S.C. § 21a, "Congress declare[d] that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in … the orderly and economic development of domestic mineral resources … to help assure satisfaction of industrial, security and environmental needs."5 As such, Congress expressly stated that "[i]t shall be the responsibility of the Secretary of the Interior to carry out this policy when exercising his authority under such programs as may be authorized by law other than this Act." Id. (emphasis added). In other words, BLM (through its authority delegated from the Secretary) must follow this express policy of fostering the development of domestic mineral resources when engaging in land-planning exercises and authorizations under FLPMA and the MLA. BLM's initial description of its preference, Alternative B, does not even acknowledge resource development as one | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. |

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| | | of the agency's primary considerations, let alone one of the priorities set out by Congress. It simply states: "Alternative B emphasizes conservation of resource values with constraints on resource uses. | |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13755-2 | BLM Should Clarify That the Entirety of the Known Sodium Leasing Area Remains Open to Leasing BLM claims that under all alternatives in the Draft RMP, including Alternative B, the KSLA "is open to sodium (trona) exploration and consideration for leasing and development." Table 2-1, at 2-40 (Management Action # 2408). Tata fully supports this management action. However, the statement that the entire KSLA is open to leasing does not present the whole picture and conflicts with language later in the Draft EIS that discusses areas off limits to trona leasing under all alternatives. Under Alternative A, BLM states that 24,458 acres of the 356,960-acre KSLA would be closed to trona leasing and development, referring to Map 2-9. Draft EIS at 4-134. Under Alternative B, BLM says that 49,224 acres would be closed to trona leasing and development, referring to Map 2-10. Draft EIS at 4-135. Under Alternative C, 21,412 acres would be closed to trona leasing and development, referring to Map 2-11. Draft EIS at 4-136. And finally, under Alternative D, BLM states that 24,290 acres would be closed to trona leasing and development, referring to Map 2-11. Draft EIS at 4-13 7. These references to areas closed to trona leasing directly contradict BLM's MA #2408 to ensure the entirety of the KSLA is open to trona leasing. | Appendix V contains a description of the areas determined "No Leasing" for sodium. MA32408 states "The KSLA is open to sodium (trona) exploration and consideration for leasing and development." MA#2411 further defines the conditions under which sodium leasing and exploration would be considered. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13755-3 | Moreover, the reasons for closure of certain areas within the KSLA are not apparent from the maps, which only delineate areas closed to coal, oil shale, and trona leasing, but do not provide any basis for the closures. A review of other resource maps suggests that the acres closed under Alternative A are those areas in the KSLA southwest of Green River that overlap with the Devil's Playground Wilderness Study Area (see overlap in Maps 2-9 and 2-29). But it is impossible to decipher from the maps what might account for the additional 25,000 acres proposed for closure in the KSLA under Alternative B. 1 BLM's failure to adequately describe the acres being proposed for closure under all alternatives or the reasons for the closure, is completely inadequate as a procedural matter because it prevents interested companies and the public from meaningfully commenting on whether such a closure is justified. Moreover, a closure without a reasonable basis is arbitrary and capricious and an abuse of agency discretion that must be reversed. 5 U.S.C. § 706(2)(A). | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. The provided maps are simply a reflection of what each alternative is proposing through the various management actions. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13755-5 | While the greatest amount of actual mining activity occurs in the underground rooms that stretch for miles beneath the surface, trona mining operations also have critical surface operations to process trona ore into soda ash through chemical process and to store associated brines in surface impoundments. Ventilation shafts are necessary to support required air circulation, emergency evacuation, and employee access to the underground mine. Air circulation and emergency evacuation are requirements under 30 C.F.R. Part 57. While minimal,2 these surface uses are necessary for the overall mining operation and require rights-of-way for access and for construction of the surface facilities. BLM's proposal to limit, and in some cases completely prohibit, surface uses within the KSLA and even in the vicinity of existing trona leases, would greatly hinder and even prevent trona mining. The extent of the KSLA is shown in Map 3-10 (the green cross-hatched area) along the southwestern boundary of the RMP area. BLM intends to place major portions of this area off limits to surface use to protect big game crucial winter range. See Map 3-3. BLM also proposes to impose wide swaths of right-of-way exclusion zones throughout much of the KSLA, which areas are also proposed to be managed under restrictive Visual Resource Management Class II designation. See Map 2-22 (ROW exclusions); Map 2-18 (VRM designations). None of these restrictions is justified, especially as they relate to trona mining. | The effects of management restrictions on Energy and Minerals are analyzed in Chapter 4 under 4.11.1. A full range of alternatives, with a variety of management actions for solid mineral leasing and restrictions is proposed in Chapter 2. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13755-6 | BLM proposes to close all "big game crucial winter ranges, parturition areas, migration corridors, and transitional habitats" to surface disturbance or disruptive activities. Draft RMP, Table 2-1 , at 2-68 (MA# 4421). As shown in Map 3-3, almost all of the KSLA is in pronghorn crucial winter or yearlong range.2 In assessing visual impacts of mineral development, BLM makes no attempt to distinguish between underground trona mining and mineral extractive industries that are far more visible and disruptive of surface resources. See Draft EIS at If Alternative B is implemented, trona operators will be unable to access the surface necessary for vital mining support facilities, making this area of the KSLA essentially useless for purposes of trona mining. BLM fails to analyze the impacts to the trona industry of such a drastic restriction across the KSLA. Moreover, such a draconian restriction makes no exception for minimal or seasonal uses, especially in areas that are already frequented by regular traffic from other activities. BLM fails to explain why existing seasonal restrictions are suddenly inadequate to manage pronghorn and other species across the planning area. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13755-9 | Second, much of the federal land in this area is checkerboard. Thus, surface restrictions on federal land have the indirect effect of holding hostage new development of private minerals where access across federal surface is needed. | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including addressing in footnote 6 that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). |
| 809 - Mineral Resources-Other Leasable | #13787-1 | The BLM must include the unique mining resources in the Rock Springs RMP Planning area. The area includes significant mineral resources, specifically the Known Sodium Leasing Area (KSLA). The KSLA is a truly exceptional resource and it is not found anywhere else on earth to this magnitude or purity. The KSLA was first defined in March 1954 and later revised in April 1978. The KSLA covers a large portion of the RMP planning area. | Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |

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| Minerals (2400-2419) | | The KSLA should be handled appropriately to effectively manage the strategic nature of this resource and its importance to both the Wyoming and U.S. economy. | |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13787-9 | Similarly, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Further, much of the data in the report is even older. For example, page 5-18 states that "The occurrence of REEs in the RSPA is described in Chapter 3.2.7. There are no known deposits of REE in the RSPA. To date there has been no systematic sampling for or evaluation of REE in the RSPA. However, the WSGS is currently conducting a statewide study, scheduled for completion in mid-2013, to identify, characterize and catalog REE deposits throughout the state." This report and several others related to REEs has been completed and must be incorporated into the RMP for completeness. Finally, as another example, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Page 5-24 states that "Although trona (soda ash) market demand decreased during the global economic slowdown starting in 2008, causing decreased prices and production, the global soda ash industry is showing positive signs of recovery. The 2010 production level at more than 16.5 million tons was up by more than 2 million tons over the 2009 level. In addition, several substantial soda ash price increases have already occurred in 2012. Along with the recovery has come interest by several producers in the possibility of future additional leasing adjacent to existing mines although no firm proposals have been submitted to date. It is expected that during the planning period, current mines or expansions to those mines could accommodate currently projected future demand increases and no new mines will be proposed. However, if the soda ash market undergoes a significant rebound during this time, the situation could change. In addition to new leasing to expand existing mines, new leasing and proposals for in situ recovery could be submitted for BLM consideration." This information is like reading from a history book. The information is outdated on all accounts and must be updated before the RMP can be considered complete or accurate. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13787-48 | MA #2402 MR-02, MR-04 In the JMH planning area, most of the planning area would be open to coal exploration activities, with avoidance and mitigation requirements needed to protect the resources (Map 2-9, and Table 2-7 Appendix V). Areas currently closed to coal exploration activities (e.g., WSAs and Steamboat Mountain ACEC outside the area of coal occurrence and development potential) would remain closed. In addition, Steamboat Mountain Management Area (outside the area of coal occurrence and development potential) would also be closed. Areas closed to exploration include: WSAs, Oregon Buttes ACEC, Steamboat Mountain ACEC, Steamboat Mountain Management Area, South Pass Historic Landscape ACED, White Mountain Petroglyphs vista, Boars Tusk, Crookston Ranch, Tri-Territory Marker, wetlands, riparian areas, 100-year floodplains +500 foot buffer, Special Status plants, raptor nest sites, and Greater Sage Grouse leks +- mile buffer. Industry position: Not acceptable Reason: Not applicable except in JMH. See MA #2401. See MA #2401. See MA #2401. See MA #2401. | MA #2401 applies to the entirety of the planning area. For a full range of alternatives for coal management, see MA #2401 through #2406, with analysis for each of the alternatives presented in Chapter 4. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13795-3 | The proposed increase in exclusion areas outlined in Maps 2-22 would result in the isolation of existing and potential future trona mines, effectively barring extraction and development of the resources in the KSLA. This risk of the BLM-WY stranding resources by prohibiting ROWs for the transport of operational equipment, personnel, and materials, threatens to derail expansion plans in the KSLA. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13795-7 | As mentioned previously, the global demand for soda ash is spurring increased investment in Green River. There have been several announcements of expansions within the KSLA over the past few years, including Solvay's 2022 announcement of a $200 million expansion. The company, like our competitors, continues to weigh options for producing more soda ash from Wyoming's plentiful natural trona reserves. The ongoing investments in the KSLA promise steady economic growth and job opportunities for Wyomingites. This growth will yield additional tax revenue and royalties for the state, local, and federal governments. However, the growth of the domestic soda ash industry relies on the ability to access the natural resources in a cost effective manner. Should BLM-WY move forward with policy changes that impede continued or future development of the KSLA it will handicap the domestic soda ash industry and encourage Chinese competitors to work towards further market consolidation. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13811-1 | All of these efforts culminated in BLM publishing a "Notice of Intent to prepare an Environmental Impact Statement for the Dry Creek Trona Mine Project" in April 2022.1 Since that time, Pacific has been working closely with the BLM and its third party contractor to prepare the Dry Creek Project EIS. Pacific anticipates the publication of the Dry Creek Project Draft EIS for public comment in the first quarter of 2024. Throughout all of this close coordination, Pacific was never alerted to the potential that the BLM was considering a resource management plan alternative that would be so restrictive that Pacific could be forced to reevaluate the placement of key infrastructure for the Dry Creek Project. | The Draft EIS has been under development since 2011. The BLM is aware of ongoing review of all rights-of-way applications that have been received by the BLM for the RSFO area and has identified any conflicts with the four alternatives proposed, notifying applicants as appropriate. |
| 809 - Mineral Resources-Other Leasable | #13811-4 | In contrast, Alternative A restricts 0.4 million acres, Alternative C restricts 0.25 million acres, and Alternative D restricts 0.4 million acres from trona leasing.12 And in the KSLA specifically, Alternative B removes 49,224 more acres from trona leasing in comparison to the currently available acreage for lease in the Green River RMP, which is a reduction of 101%. The Green River RMP grants BLM discretion to decide whether or not to grant leases and what restrictions to impose upon them. BLM could retain this discretion and achieve significant conservation goals | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |

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| Minerals (2400-2419) | | without categorically removing millions of acres from trona leasing. BLM could use its discretion to balance the economic interests in trona development with its long-term conservation interests. Alternative B's categorical restrictions would not achieve that balance. | |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13811-6 | The implementation of Alternative B would force the BLM to impose additional restrictions on operations and development in proximity to NHTs, which may or may not be necessary to preserve and protect the NHTs. Under the proposed Alternative B, a five-mile wide buffer on either side of the NHT "would be managed as closed to mineral leasing and mineral material sales, as an exclusion area for ROWs, and a withdrawal would be pursued."17 The areas within the five-mile buffer "would have the most protections to soils from surface disturbing activities, as the stipulations would be more restrictive."18 Additionally, within five to 15 miles on either side of the NHT, the area would be managed as open to mineral leasing and mineral material sales with Controlled Surface Use restrictions and would be a right-of-way avoidance area.19 In short, both of these areas "would receive more protections to soils, compared to Alternative A."20 But as with the other categorical restrictions Alternative B proposes, BLM already has discretion to impose case-by-case restrictions in proximity to NHTs. Trading BLM's discretion for categorical restrictions does no more to achieve its conservation goals while at the same time unduly restricting economic development in the Planning Area. Indeed, the technical and economic viability of the Dry Creek Project is detrimentally affected by these proposed restrictions due to the categorical five-mile development prohibition around the NHTs, limiting required access and mineral processing support features critical to reasonable mineral extraction within the KSLA. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13811-14 | Limitations on Natural Soda Ash Production and the Potential Shift to Synthetic Trona Production Soda ash is a critical component in the production of many essential products in the United States, including glass (for bottles, containers, flat glass, and for solar panels), the production and recycling of lithium carbonate for batteries, chemicals, soaps and detergents, flue-gas desulfurization, pulp and paper, and municipal water treatment, among others. Under the Green River RMP, the trona-mining industry produces approximately 12 million tons of natural soda ash from the Green River Basin. The Green River Basin industry provides approximately 2,300 jobs, nearly $400 million in payroll, and approximately $100 million in federal, state, and local taxes annually. BLM did not adequately analyze or consider the socioeconomic effects of the four alternatives on the Planning Area. If implemented, Alternative B would limit infrastructure development and restrict trona mining and processing in the Green River Basin, where the world's largest trona resources of the quantity and purity necessary to produce natural soda ash exists. But, limiting access to natural trona reserves will not reduce commercial and industrial demands for soda ash. Alternative B could therefore facilitate a shift in production from natural, domestic soda ash to synthetic, foreign soda ash. This shift will have three significant effects. First, the shift will negatively impact local and state economies in and around the Green River Basin. Second, the supply of American natural soda ash available for export will decline, and it will be filled by foreign sources of natural soda ash-specifically Chinese produced natural soda ash. For instance, by the end of 2022, worldwide soda ash production reached a total capacity of 58 million metric tons, 16 million of which was natural. Of those 16 million metric tons of natural soda ash, 11.6 million are American, while the remaining 4.4 million are Turkish. In 2023, Inner Mongolia (China) Berun Yingen ("China Berun") added 5.0 million metric tons of natural soda ash capacity, with an additional 2.8 million tons expected by 2026. If Alternative B is implemented, Pacific's and Sisecam's production of natural soda ash cannot be fully developed, and the difference in the natural soda ash economy will instead be supplied by Chinese Berun. Third, because foreign sources of soda ash cannot fill the gap that the reduction in American natural soda ash resulting from Alternative B, there will be a partial shift toward synthetic soda ash. Synthetic soda ash production is significantly more energy-intensive than natural production,37 it will exacerbate the global climate crisis that BLM management plans are designed, in part, to mitigate against. In short, the implementation of Alternative B would harm Wyoming's 37 U.S.-based natural soda ash production uses less than 50% of the energy and results in 37% fewer greenhouse-gas emissions per ton produced than synthetic production. Pacific Soda, LLC 20 Shoshone Avenue Green River, WY 82935 Page 10 of 10 4884-4214-2618\7 economy and undermine BLM's own conservation goals. BLM could better achieve those important economic and conservation goals by ensuring that natural soda ash production can continue in the KSLA while retaining the Green River RMP's discretion to limit production on a case-by-case basis in consultation with stakeholders. | The socioeconomic report is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013, which can be used for comparison purposes among the different alternatives. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13865-3 | Closing areas to all solid mineral leasing or surface disturbance based on a rigid set of indices that are not clearly mapped, instead of evaluating projects on a case-bycase basis is unnecessarily restrictive, and creates difficulty in planning or siting new projects. In addition, there is no exception under Alternative B of MA #1107 for existing facilities (such as power lines or access routes) that require some occasional surface disturbance for operations and maintenance. Surface disturbance has historically been handled through cooperation between BLM specialists and PacifiCorp with the implementation of appropriate Best Management Practices (BMPs) (as Alternatives A, C, and D allow) and Alternative B could prevent PacifiCorp from fulfilling its requirements to maintain and operate its current system because there is no reasonable exception process. In addition to maintaining current infrastructure, the linear characteristics of power lines require that at some point, any new or proposed line or corridor would cross sites with soil disturbance that would fall under the list of soil types in Alternative B of MA #1107. Siting future lines and corridors includes weighing priorities of numerous resources, of which soil quality is one of many | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |

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| | | considerations. In some areas, powerlines may span soil types; however, there is no possible way to site a future line that could avoid all vulnerable soils, and under Alternative B, there is no reasonable way to determine options and implement BMPs to minimize those impacts. Under Alternative B, it would not be possible to plan future lines or corridors through the RSFO, including transmission infrastructure necessary to meet national energy goals and bring new renewables onto the grid. Alternatives A, C, and D specifically address soil concerns by including avoidance as an option, while requiring a mitigation plan (Alternative D) or erosion control plans (Alternatives A and C) where appropriate, and PacifiCorp recommends that the BLM adopt Alternative A, C, or D for MA #1107. Reclamation and mitigation plans can and are successful in difficult-to-reclaim areas, and should be allowed to continue. | |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13865-18 | C. MA #4421 Alternative B of MA #4421 prohibits surface disturbing activities on big game crucial ranges, parturition areas, migration corridors, and transitional habitats with no exceptions, even if impacts could be mitigated. Due to the proximity of several big game crucial ranges within BCC's permit area, the prohibitions of Alternative B could limit the ability of BCC to meet existing permit, lease, and reclamation obligations. PacifiCorp recommends that the BLM adopt Alternative A of MA #4412, as it is consistent with current permit and regulatory obligations. Likewise, Alternative D would also be acceptable as this alternative allows for some exceptions to be granted. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13865-19 | D. MA #4424 It is unclear if MA #4424 applies only to fluid minerals or to all surface disturbances, as the language differs between Alternatives B, C, and D. If the intent is to apply a ½ mile buffer around big game migratory corridors for all surface disturbances, this could impact PacifiCorp's ability to operate its system, serve customers, and meet project reclamation requirements. Big game routinely cross underneath power lines and utilize power line ROWs, renewable energy sites, and mine reclamation areas as habitat. BLM has failed to provide supporting evidence that prohibiting surface disturbance will benefit migrating big game. Likewise, "Identify and preserve wildlife species migration and travel corridors" is too vague and could pertain to any number of wildlife species that migrate and travel in corridors, further limiting where surface disturbing activities can occur. If the intent of this MA is towards big game, it should be clarified, and seasonal construction buffers should reflect those identified by the lead agency (WGFD); however, blanket restrictions on surface occupancy for all activities is unreasonable and rather should be evaluated on a case-by-case basis. For these reasons, PacifiCorp recommends that the BLM adopt Alternative A or C for MA #4424. | The difference in language among the four alternatives is intentional for MA #4424 to distinguish between fluid minerals and other types of disturbance. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13865-28 | M. MA #4616 It is unclear how many additional lands would be impacted by mineral lease withdrawals or non-renewals under Alternative B of MA #4616. Under Alternative B of MA #4616, PacifiCorp is concerned that mineral leases would not be re-offered once they expire, which will have significant impacts to BCC, including impacts to operations and fulfilment of existing lease and permit obligations. PacifiCorp recommends that the BLM adopt Alternative D of MA #4616 as it would allow current operations and would be consistent with current permits, regulations, and policies. | Please refer to the Glossary for a definition of 'withdrawal', which applies to general land laws for locatable minerals. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13865-44 | As stated above, ROW Exclusion areas could impact BCC's ability to comply with permits and regulations as many of its ROW are related to regulatory compliance structures and access to topsoil piles. If a structure needs to be moved, a new well drilled, or a new access road placed in these areas, the BLM would not be able to consider the request due to the ROW exclusion. The ROW avoidance areas in Alternative D would have little or no impact on BCC's operations or regulatory compliance and Alternative D or A is preferred by BCC. In addition, also as discussed above, the ROW Exclusion areas limit existing transmission and distribution O&M and the ability to construct new transmission and distribution and other energy projects. | The effects of management restrictions on Energy and Minerals are analyzed in Chapter 4 under 4.11.1. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13865-45 | Similarly, much of BCC's permit area is considered antelope crucial winter range. Western portions within the permit boundary also have overlapping crucial elk winter range. Any of the big game seasonal restrictions and stipulations in Alternatives B or D that would require surface disturbing activities to stop or severely restrict surface disturbing activities in these areas could have impacts on operations including those that allow BCC to meet regulatory, permit, and lease obligations such as contemporaneous reclamation requirements and monitoring requirements. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809 - Mineral Resources-Other Leasable Minerals (2400-2419) | #13951-18 | Page 2-43; Mineral Resources #2417 "Consider and give priority to the use of land exchanges, where appropriate and feasible, to consolidate land ownership and mineral interests within the oil shale basins." -Interest in commercial leasing for oil shale remains low, so as the Wyoming Governors task force determined, maintenance of the status quo under Alternative A. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809.01 - Solid Leasable Minerals (coal) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1. |

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| 809.01 - Solid Leasable Minerals (coal) | #13702-7 | MA 4421 Alternative B- closes these areas to material sales and closes these areas to all solid mineral (trona and coal) leasing due to No Surface Occupancy. This is not acceptable. Big game migration corridors also need protections, and their locations are a matter of research and on-going monitoring by WGFD. Accurate evaluation of the impact of these migration corridors is very difficult until WGFD releases the latest migration corridors map. | MA 4421 is referencing WGFD designated crucial winter range, migration corridors, and parturition areas. Impacts from WGFD designations are outside the scope of this EIS. The BLM is proposing management actions within these WGFD designated areas on BLM land. For impacts to BLM proposals, see Chapter 4. |
| 809.01 - Solid Leasable Minerals (coal) | #13751-119 | MA #2401 ALT A With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM- administered public lands and federal coal lands in the Green River planning area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential Table 2-7 in Appendix V, Map 2- 9). Industry position: Not acceptable. Reason: Industry agrees with most of the language in this management action but disagrees with the closure to coal leasing and development within ¼ mile of raptor nest sites under Alternative A in Appendix V Table 2-7 (page V-14). Exceptions should be made where the leasing proponent or coal mine operator has a raptor mitigation plan that has been reviewed and approved by the USFWS that protects raptor nesting success. Appropriate nest protections or mitigation measures will be applied. ALT BWith appropriate limitations and mitigation requirements for the protection of other resources values, all BLM-administered public lands and federal coal lands in the Rock Springs planning area, except for those lands identified as closed, would be open to coal resource inventory and exploration to help identify coal resources and their development potential (Table 2-7 in Appendix V, Map 2-10). Industry position: Not acceptable. Reason: Appendix V Table 2-7 pages V-14 - V-15 closes coal leasing and development within one mile of active and historic raptor nest sites and in areas on which soils have the following properties: wind erodibility index>100, saline, sodic, saline- sodic, 2:1 clays, sand dunes, slopes>25%, slumps, difficult to reclaim. Exceptions should be made where leasing proponents and coal mine operators develop a raptor mitigation plan that is reviewed and approved by the USFWS that protects raptor nesting success. Reclamation research and mine reclamation practice has developed techniques to reclaim hard to reclaim soils and steep topography. Reclamation standards for mining on all soils are under the Wyoming Environmental Quality Act (WQA) and enforced under State primacy by WDEQ-LQD through that agency's regulations and mine permits. ALT C With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM-administered public lands and federal coal lands in the Rock Springs planning area, except for those lands identified as closed, would be open to coal resource inventory and exploration to help identify coal resources and their development potential (Table 2-7 in Appendix V, Map 2-10). Industry position: Acceptable. Reason: Table 2-7 in Appendix V and Map 2- 10 show that the all BLM-administered public land and federal coal lands in the Rock Springs planning area are open for coal leasing and development except the most environmentally sensitive areas. ALT D Same as Alternative A. Industry position: Not acceptable. Reason: Coal leasing and development should not be closed within ¼ mile of 100-year flood plains, wetlands, riparian areas, perennial streams, and within 500 feet of large ephemeral drainages (Appendix V Table 2-7- page V-14). Practices for runoff control, erosion and sediment control are well developed conservation measures and are applied by the coal industry. The WDEQ-LQD under the WQA and through their regulations and mine permits has regulatory authority over mining activities in these areas. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. |
| 809.01 - Solid Leasable Minerals (coal) | #13751-120 | MA #2402 ALT A In the JMH planning area, most of the planning area would be open to coal exploration activities, with avoidance and mitigation requirements needed to protect the resources (Map 2-9, and Table 2-7 Appendix V). Areas currently closed to coal exploration activities (e.g., WSAs and Steamboat Mountain ACEC outside the area of coal occurrence and development potential) would remain closed. In addition, Steamboat Mountain Management Area (outside the area of coal occurrence and development potential) would also be closed. Areas closed to exploration include: WSAs, Oregon Buttes ACEC, Steamboat Mountain ACEC, Steamboat Mountain Management Area, South Pass Historic Landscape ACED, White Mountain Petroglyphs vista, Boars Tusk, Crookston Ranch, Tri-Territory Marker, wetlands, riparian areas, 100-year floodplains +500 foot buffer, Special Status plants, raptor nest sites, and Greater Sage Grouse leks +- mile buffer. Industry position: Not acceptable. Reason: Not applicable except in JMH. | Alternative A is the existing management and only applied to the JMH area. See MA 2401 as referenced in Alt B-D for the proposed actions in response to this existing management action. |
| 809.01 - Solid Leasable Minerals (coal) | #13751-121 | MA #2407 Alternative A BLM-administered public land surface overlaying state-owned coal are open to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values and uses, including big game crucial winter range, cultural values, geologic features, and rights-of-way (about 28,000 acres). These lands are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, in general, and on threatened and endangered plant and animal species and their essential habitats. Such investigations, studies, and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing and development proposals by the state or, of opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where raptor nests become abandoned or where new raptor nests become established), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g. USFWS, WGFD, etc.) special interest groups, and with industry would occur as needed or required. About 3,000 of these acres are closed to surface mining activities to protect cultural and geologic values. These would be no surface occupancy and very | Alternative A is the existing management. All alternatives similarly keep these lands open to coal exploration. See MA 2407, Alt B-D. |

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| | | limited surface occupancy areas. Industry position: Not acceptable. Reason: Closure of the federal surface will in some cases block access to state- owned coal. Coal leasing and development proposals should be evaluated case by case and subject to NEPA rather than blanket closures. Alternative B Open BLM-administered public land surface overlaying state-owned coal to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values. Industry position: Not acceptable. Reason: Industry agrees with the language of this alternative. However, Map 2-10 Solid Leasable Minerals - Alternative B shows State sections that are closed to coal in areas around active coal mining. The map effectively negates language in this alternative. Development of State coal under federal surface should be managed by NEPA processes, not closures. Alternative C Same as Alternative A. Industry position: Not acceptable. Reason: Closure of the federal surface will in some cases block access to state-owned coal. Coal leasing and development proposals should be evaluated case by case and subject to NEPA rather than blanket closures. Alternative D BLM-administered public land surface overlaying state-owned coal are available for ROWs to develop coal, unless identified as avoidance or exclusion areas in Table 2-10 (Appendix V). Industry position: Not acceptable. Reason: The language of the alternative is acceptable. However, Table 2-10 Appendix V under Alternative D lists avoidance areas of 500 feet from eligible Historic Roads and Trails and ¼ mile from Overland and Cherokee Trails. Industry agrees that protective measures are needed but they should be developed through the NEPA process rather than an avoidance area. | |
| 809.01 - Solid Leasable Minerals (coal) | #13787-5 | Wyoming is the also the top coal producing state in the nation, and coal remains critical to the state's economy. In 2022, the financial contribution from coal to state and local governments in the form of taxes, royalties and fees was over $562.7 million. Wyoming's share of federal mineral royalties - royalties paid on mining the leased federal coal - was over $184 million (with a $229.7 million share paid to the federal government). Revenues generated from the federal coal resource fund federal, state and local governments, highways and roads, schools and community colleges, and the University of Wyoming. Billions of dollars in revenues from Coal Lease Bonus Bids have built new schools and facilities in every county in Wyoming over the last 3 decades. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809.01 - Solid Leasable Minerals (coal) | #13787-6 | Coal remains the only abundant, consistently low-cost, and reliable source of electricity generation in the United States at a time when grid reliability is rapidly deteriorating due to the hasty build-out of heavily subsidized, highly unreliable wind and solar. And coal fired base load generation remains critical as the nation moves ever further down the path of over- reliance on unreliable alternative energy sources such as wind and solar, and volatile natural gas subject to price swings. Efforts to restrict the federal coal resource will have a negative effect on Americans not only in terms of reliability, but significantly higher energy prices as well. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809.01 - Solid Leasable Minerals (coal) | #13787-12 | Page 4-6 forth bullet of the Draft RMP/DEIS includes the following "The magnitude of and increases in estimated emissions from solid mineral development, including surface mining of coal and trona, at the level of development predicted for all alternatives over the life of the plan have the potential to cause impacts related to fugitive dust and increased ozone formation, visibility degradation, and atmospheric deposition." Likewise on page 4-11 "The quantities of emissions estimated from fluid mineral development and solid mineral development activities are based on reasonably foreseeable estimates of development rates, well counts, production rates, and existing technologies. The estimated emissions should not be considered definitive and may not reflect actual emissions at the time of development, due to the unknown future demand for mineral development over the life of the plan. Although the quantity of emissions calculated for this category may not represent actual emissions from eventual development, the magnitude of estimated emissions of several pollutants for this source category is considerable. Emissions of PM10, VOCs, and NOX from this category have the highest potential to impact air quality under each of the alternatives. These impacts could include increased ambient concentrations of NOX and increased ozone formation in summer and winter." It is well understood that NOx and VOCs emissions contribute to ozone formation; however, these statements should also include a disclaimer that the WDEQ concluded that the trona mines do not contribute to the ozone non-attainment area due to the wind trajectories. This information was concluded by the WDEQ and agreed to by the EPA in 2011 and was the basis for the ozone non-attainment boundary. Likewise, the 1998 visibility study also concluded the trona mines had no impairment on the basin. Further, the WDEQ has recently completed the regional haze glide path review which does not indicate trona (or coal for that matter) as significant contributors to visibility degradation. EPA regulates regional haze at Title 40 (Protection of Environment) of the Code of Federal Regulations (CFR, WY SIP) §51.308. Any effort by the BLM to regulate the same is redundant and an overreach. | Air Quality Management Actions can be found in #1000-1017, with impacts from each of the four proposed alternatives described in Chapter 4. See also Appendices P and Q. |
| 809.01 - Solid Leasable Minerals (coal) | #13787-18 | Alternative B closes coal leasing and development on the vast majority of federal sections both north and south of the checkerboard, which is all lands except State of Wyoming Lands, as shown on Map 2-10 in Appendix V. This closure renders nearly all coal on private or State of Wyoming sections, not already leased and permitted, unminable. Small scale mining that is restricted to private and State sections is uneconomical and infeasible. Access to nonfederal lands over federal sections is also at risk | Proposed management actions related to coal for all four alternatives can be found in MA 2401-2407. Impacts from the four alternatives are presented in Chapter 4. |
| 809.01 - Solid Leasable Minerals (coal) | #13787-19 | Mining and reclamation of flood plains, ephemeral streams, wetlands, riparian areas, or mining areas near them is also proven successful in protecting water quality and meeting water quality standards. The WDEQ-LQD has state primacy and regulates these mining activities through the mine permit. | The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. |

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| 809.01 - Solid Leasable Minerals (coal) | #13787-20 | Further, Alternative B imposes closures on coal leasing and development in proximity to raptor nesting areas, on hard to reclaim soils, and 100-year flood plains. This is unnecessary for the protection of these resources because protective measures and proven mitigation measures exist to protect these resources while mineral exploration and orderly coal mining operations are on-going. Seasonal restrictions have been followed and worked under Alternative A. These closures are in Appendix V Table 2-7 (page V14) and referenced in MA #2401. As an example, raptor nesting has been successfully protected at coal mines within 1 mile and ¼-mile of raptor nesting areas through raptor mitigation plans that are reviewed and approved by the U.S Fish and Wildlife Service (USFWS). These plans describe how raptor nesting will be protected, mitigation measures that will be authorized, permitting requirements, and monitoring requirements. Mitigation measures are required to be those that have been proven successful. Renewal of plans depends on compliance with the plan and permit stipulations and successful outcomes on mitigation measures. Hard to reclaim soils may be difficult to reclaim but are possible to reclaim. Reclamation research has developed reclamation techniques for these soils. Coal mining operators have successfully implemented reclamation techniques to reclaim these soils for many years. Standards for reclamation and revegetation success are enforced by WDEQ-LQD via the mine permit under oversight of the US Office of Surface Mining Reclamation and Enforcement (OSMRE). | Proposed management actions related to coal for all four alternatives can be found in MA 2401-2407. Impacts from the four alternatives are presented in Chapter 4. |
| 809.01 - Solid Leasable Minerals (coal) | #13787-47 | MA #2401 MR-02, MR-04 With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM- administered public lands and federal coal lands in the Green River planning area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential Table 2-7 in Appendix V, Map 2- 9). Industry position: Not acceptable Reason: Industry agrees with most of the language in this management action but disagrees with the closure to coal leasing and development within ¼ mile of raptor nest sites under Alternative A in Appendix V Table 2-7 (page V-14). Exceptions should be made where the leasing proponent or coal mine operator has a raptor mitigation plan that has been reviewed and approved by the USFWS that protects raptor nesting success. Appropriate nest protections or mitigation measures will be applied. With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM-administered public lands and federal coal lands in the Rock Springs planning area, except for those lands identified as closed, would be open to coal resource inventory and exploration to help identify coal resources and their development potential (Table 2-7 in Appendix V, Map 2-10). Industry position: Not acceptable Reason: Appendix V Table 2-7 pages V-14 - V-15 closes coal leasing and development within one mile of active and historic raptor nest sites and in areas on which soils have the following properties: wind erodibility index>100, saline, sodic, saline- sodic, 2:1 clays, sand dunes, slopes>25%, slumps, difficult to reclaim. Exceptions should be made where leasing proponents and coal mine operators develop a raptor mitigation plan that is reviewed and approved by the USFWS that protects raptor nesting success. Reclamation research and mine reclamation practice has developed techniques to reclaim hard to reclaim soils and steep topography. Reclamation standards for mining on all soils are under the Wyoming Environmental Quality Act (WQA) and enforced under State primacy by WDEQ-LQD through that agency's regulations and mine permits. With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM-administered public lands and federal coal lands in the Rock Springs planning area, except for those lands identified as closed, would be open to coal resource inventory and exploration to help identify coal resources and their development potential (Table 2-7 in Appendix V, Map 2-10). Industry position: Acceptable Reason: Table 2-7 in Appendix V and Map 2- 10 show that the all BLM-administered public land and federal coal lands in the Rock Springs planning area are open for coal leasing and development except the most environmentally sensitive areas. Same as Alternative A. Industry position: Not acceptable Reason: Coal leasing and development should not be closed within ¼ mile of 100-year flood plains, wetlands, riparian areas, perennial streams, and within 500 feet of large ephemeral drainages (Appendix V Table 2-7- page V-14). Practices for runoff control, erosion and sediment control are well developed conservation measures and are applied by the coal industry. The WDEQ-LQD under the WQA and through their regulations and mine permits has regulatory authority over mining activities in these areas. Alternative C is acceptable. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419 |
| 809.01 - Solid Leasable Minerals (coal) | #13865-44 | As stated above, ROW Exclusion areas could impact BCC's ability to comply with permits and regulations as many of its ROW are related to regulatory compliance structures and access to topsoil piles. If a structure needs to be moved, a new well drilled, or a new access road placed in these areas, the BLM would not be able to consider the request due to the ROW exclusion. The ROW avoidance areas in Alternative D would have little or no impact on BCC's operations or regulatory compliance and Alternative D or A is preferred by BCC. In addition, also as discussed above, the ROW Exclusion areas limit existing transmission and distribution O&M and the ability to construct new transmission and distribution and other energy projects. | The effects of management restrictions on Energy and Minerals are analyzed in Chapter 4 under 4.11.1. |
| 809.01 - Solid Leasable Minerals (coal) | #13865-45 | Similarly, much of BCC's permit area is considered antelope crucial winter range. Western portions within the permit boundary also have overlapping crucial elk winter range. Any of the big game seasonal restrictions and stipulations in Alternatives B or D that would require surface disturbing activities to stop or severely restrict surface disturbing activities in these areas could have impacts on operations including those that allow BCC to meet regulatory, permit, and lease obligations such as contemporaneous reclamation requirements and monitoring requirements. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419 |

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| 809.01 - Solid Leasable Minerals (coal) | #13880-16 | Solid Mineral Impacts. The draft RMP assumes no impacts to coal or trona mining within the RSFO because existing leases will not be affected, as additional leasing is not expected even under Alternative A. Evaluating the reasonableness of this assumption, without considering the effect of the other management actions is questionable and would require additional research and coordination with private developers. | The effects of management restrictions on Energy and Minerals are analyzed in Chapter 4, with the analysis assumptions identified in section 4.11.1. |
| 809.01 - Solid Leasable Minerals (coal) | #14027-2 | Despite the recognition in the draft RMP/EIS that coal mining is a significant part of the economy in the planning area, the preferred alternative would close 98 percent of the planning area to future coal mining. Accordingly, the NMA strongly objects to the preferred alternative B. Nowhere in the draft RMP/EIS does BLM fully explain the rationale for such severe restrictions on coal mining activities. Additionally, the agency attempts to downplay the significance of this decision by noting there are no outstanding or pending applications for federal coal leases or exploration licenses on lands within the planning area, that the last leasing was completed in 2013 and recent coal production has been in decline.36 Such statements ignore the continued role of coal in the U.S. energy mix. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809.01 - Solid Leasable Minerals (coal) | #14027-3 | As discussed above, not only is the alternative inconsistent with FLPMA and the Mineral Leasing Act, but it fails to achieve the presumably hoped for, but never adequately justified, environmental benefits. Placing this federal coal off limits is unlikely to reduce the overall tonnage of coal that is extracted in Wyoming. Rather, it encourages the development of non-federal coal in a way that is both inefficient and functionally sterilizes federal coal resources. Such an approach would ultimately result in greater impacts on environmental resources while having a negative long-term impact on revenues to federal, state, and local governments. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. The DEIS's adherence to applicable law, regulation, and policy to include FLPMA and the MLA is addressed in Chapter 1 under 1.4 Planning Criteria. Potential prioritization of non-federal resources is analyzed under Appendix T page T-26 |
| 809.01 - Solid Leasable Minerals (coal) | #14027-7 | While mentioning the need to prepare a future mineral potential report, the draft RMP/EIS also references a 2012 report, Solid Mineral Occurrence and Development Potential Report for the RSFO [Rock Springs Field Office] as providing historical production data for the planning area, and surface use restrictions for the alternatives analysis.46 Much of the information contained in that report is woefully out of date, in contradiction of the BLM Manual 3031, which indicates that "land use plans will reflect geological, energy and mineral values on public lands through more effective geology and energy and mineral resource data assessment. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 809.01 - Solid Leasable Minerals (coal) | #14027-10 | the description of total acreage being placed off limits for mining projects under the preferred alternative B does not take into account acres that may be off limits due to sage grouse management.51 This lack of coordination prevents adequate review of the draft RMP/EIS and completely undermines the Appendix T, the cumulative impacts analysis section. | Greater Sage Grouse actions are being evaluated under separate RMP Amendment. See Chapter 1.4 for the Planning Criteria. |
| 809.02 - Public Land Surface Overlying State-Owned Coal | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1. |
| 809.02 - Public Land Surface Overlying State-Owned Coal | #13787-49 | MA #2407 MR-02, MR-04 BLM-administered public land surface overlaying state-owned coal are open to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values and uses, including big game crucial winter range, cultural values, geologic features, and rights-of-way (about 28,000 acres). These lands are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, in general, and on threatened and endangered plant and animal species and their essential habitats. Such investigations, studies, and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing and development proposals by the state or, of opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where raptor nests become abandoned or where new raptor nests become established), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g. USFWS, WGFD, etc.) special interest groups, and with industry would occur as needed or required. About 3,000 of these acres are closed to surface mining activities to protect cultural and geologic values. These would be no surface occupancy and very limited surface occupancy areas. Industry position: Not acceptable Reason: Closure of the federal surface will in some cases block access to state- owned coal. Coal leasing and development proposals should be evaluated case by case and subject to NEPA rather than blanket closures. Open BLM-administered public land surface overlaying state-owned coal to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values. Industry position: Not acceptable Reason: Industry agrees with the language of this alternative. However, Map 2-10 Solid Leasable Minerals - Alternative B shows State sections that are closed to coal in areas around active coal mining. The map effectively negates language in this alternative. Development of State coal under federal surface should be managed by NEPA processes, not closures. Same as Alternative A. Industry position: Not acceptable Reason: Closure of the federal surface will in some cases block access to state-owned coal. Coal leasing and development proposals should be evaluated case by case and subject to NEPA rather than blanket closures. BLM-administered public land surface overlaying state-owned coal are available for ROWs to develop coal, unless identified as avoidance or exclusion areas in Table 2-10 (Appendix V). Industry position: Not acceptable Reason: The language | Alternative A is the existing management. All alternatives similarly keep these lands open to coal exploration. See MA 2407, Alt B-D. |

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| | | of the alternative is acceptable. However, Table 2-10 Appendix V under Alternative D lists avoidance areas of 500 feet from eligible Historic Roads and Trails and ¼ mile from Overland and Cherokee Trails. Industry agrees that protective measures are needed but they should be developed through the NEPA process rather than an avoidance area. BLM-administered public land surface overlaying state-owned coal are available for ROWs to develop coal with appropriate and necessary protective measures to be developed through the NEPA process and in consultation with other state and federal agencies with jurisdiction over surface resources. Language is taken from Alternatives D and B. | |
| 809.03 - Trona (Sodium) | #305-1 | Facts: 1. The trona industry in Southwest Wyoming is producing +90% of the Soda ash in United states. 2. 50% of the Soda Ash is used in the Glass industry 3. 15% of the Soda Ash is use in a detergent manufacturing 4. 18% of the Soda is used in other Chemicals manufacturing (such as lithium salt, used in battery for EV) Opinion: The potential limitation of Soda Ash production and/or mine closer, will have a direct impact to the US economy. Currently there is no substitution of the Natural Soda Ash process in US and mine closures will force the US manufacturers using domestic Soda ash either import Soda Ash or even move their production outside US. This will drive the cost of the manufactured goods (flat, container, other glass, detergents and others) prices up and hurting the end users and US economy as total. The alternative of natural soda ash is synthetic soda ash. The Synthetic Soda ash process has a greater impact to the environment. Raw materials use in this process are Lime stone - typically open pit quarries (surface disturbance), Salt brine - typically solution mining (surface disturbance), Process also uses Ammonia - 2-3% is lost in the process, and last but not least the process it is energy intensive - resulting in bigger CO2 footprint. From a global environmental perspective (considering the planet and not only Southwest WY) the environmental impact from trona mine closer will be bigger. The other significant naturally occurred trona resources are in Turkey and China, owned and operated by Turkish and Chinese companies. | Air Quality Management Actions can be found in #1000-1017, with impacts from each of the four proposed alternatives described in Chapter 4. See also Appendices P and Q. For management actions related to trona, see MA 2408-2411 and Chapter 4. |
| 809.03 - Trona (Sodium) | #551-3 | Proposed Management Actions 2408-2412 -Trona. Section 4.11.3 of the RMP states that "[u]nder Alternative B, 49,224 acres would be closed to trona leasing and development within the KSLA ["Known Sodium Leasing Area"] (Table 2-07, Map 2-10)" The Federal Land Policy Management Act of 1976 ("FLPMA") provides that "In the development and revision of land use plans, the Secretary shall- ( 1) use and observe the principles of multiple use and sustained yield set forth in this and other applicable law" See 43 U.S.C. §l 712(c)(l). Map 2-10 as published is practically impossible to read with respect to which additional BLM parcels will be closed to trona leasing. Taking at face value the statement that the BLM proposes to remove 49,224 acres from the KSLA, this action appears to be arbitrary, capricious and in violation ofFLPMA Section 202(c)(l)'s mandate that the land use plan should "use and observe the principles of multiple use and sustained yield set forth in this and other applicable law". The RMP fails to analyze the potentially severe negative economic impact to Wyoming's trona industry and the over 2,225 workers employed locally in that industry. The trona industry not only benefits the economy directly, but also, through ad valorem and severance taxes, supports state and local government and is a significant funding source for Wyoming's K-12 education system. The RMP fails to analyze these negative externalities arising from proposed management actions 2408, 2409, 2410, 2411 and 2412 in Alternative B. By failing to analyze these negative external economic impacts, the RMP Alternative B violates the FLPMA mandate that it achieve "sustained yield" from multiple use of public lands. I request that zero additional acres be removed from the KSLA. | The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809.03 - Trona (Sodium) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1. |
| 809.03 - Trona (Sodium) | #13210-8 | 8. No management action should result in the blanket exclusion or avoidance of the responsible leasing and development of sodium minerals (trona/soda ash) within the Known Sodium Leasing Area (KSLA), including management actions that deal with rights-of-way, trails, water, air, wildlife, and raptors. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809.03 - Trona (Sodium) | #13210-9 | 9. The public lands within the Rock Springs Field Office should be managed to promote the responsible development of infrastructure supporting sodium minerals (trona/soda ash) industries within the KSLA. The task force has found consensus that the management actions within the KSLA should: a. Protect wetlands and riparian areas within the KSLA while considering, on a case-by-case basis, linear crossing, surface disturbing activities, and new permanent facilities proposed for placement within riparian areas or wetlands and 100-year floodplains or adjacent to the inner gorge of large ephemeral drainages. See e.g., Management Action 1313. b. Protect big game seasonal areas within the KSLA as identified by the Wyoming Game and Fish Department while allowing for exceptions to be considered on a case-by-case basis if impacts can be mitigated in accordance with exception criteria in Appendix B. See e.g., Management Action 4421. c. Protect active raptor nests within the KSLA as warranted on a case-by-case basis determined by conditions on the ground. Reference to historic nests should be removed. See e.g., Management Actions 4428, 4430, and 4431. d. Maintain current visual resource management (VRM) designations within the KSLA. See e.g., Management Action 5400. e. Except for defined, existing exclusion and avoidance areas, allow for the consideration of granting rights-of-way within the KSLA. Do not designate new exclusion or avoidance areas that conflict with responsible mineral development in the KSLA. See e.g., | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |

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| | | Management Action 6201. f. For National Historic and Scenic Trails within the KSLA, avoid surface disturbing activities within 1/4 mile of any contributing NHT segment if it would be visible from the trail; subject the area beyond 1/4 mile from the NHTs to standard NHPA and BLM/SHPO Protocol measures to avoid, minimize, or mitigate effects to NHTs; allow NHT crossings by rights-of-way in areas where trail ruts have been modified by modern uses, where previous crossings exist, or where new corridor crossings would not damage trail remains. The BLM and SHPO have agreed that the setting of the NHT in the KSLA has been compromised by existing development. See e.g., Management Actions 7002, 7003, 7004, 7017, and 7021. | |
| 809.03 - Trona (Sodium) | #13542-1 | As a direct requirement for other economic sectors in the United States, soda ash is included by the Federal Reserve Board as an economic indicator for industrial production and economic condition of the country. Therefore, the BLM is obliged to explain to the public its reasons for any change in its position that has for decades favored trona mining within the KSLA over other resources. See Encino Motorcars, LLC v. Navarro, 136 S. Ct. 2117, 2126 (2016) (explaining that after decades of industry reliance on a prior policy, an agency must present a more reasoned explanation for why it deemed it necessary to overrule its previous position). | The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. |
| 809.03 - Trona (Sodium) | #13542-4 | Synthetic soda ash production uses salt, limestone, and ammonia to produce soda ash, rather than naturally deposited trona. This process is much more energy intensive compared to natural soda ash production from trona. United States natural soda ash production from trona uses less than 50% of the energy and results in 37% less greenhouse gas emissions for each ton produced compared to synthetic soda ash production. Any reduction in the ability to produce natural soda ash in the KSLA will not only move that production outside of the United States but will result in higher energy consumption and greenhouse gas emissions. | The scope of air quality analysis is defined in Chapter 4 under 4.3 Air Quality. |
| 809.03 - Trona (Sodium) | #13542-60 | a. LC-15 There are several trona mining leases that have been added since 2011 when this report was run. Please revise and update the information analyzed by the agency and disclosed to the public. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Socioeconomic analysis is covered in Appendix N, including data assumptions and the timeframe of the analyses. See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 809.03 - Trona (Sodium) | #13542-75 | Literature Cited. WMA. 2010. LC-16 This referenced trona report uses production and employment data that are over 13 years old. WMA has a brochure issued in January 2023 (WMA-Trona-Brochure-Update_2022-2023.pdf (wyomingmining.org)) that provides current information on employment and revenue generated by soda ash production in Southwest Wyoming. Wyoming Mining Association: Trona Mining Production and Employment 's website shows 2018 data for trona production and employees. Both sources are more current than the referenced source used in the RMP. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Socioeconomic analysis is covered in Appendix N, including data assumptions and the timeframe of the analyses. See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 809.03 - Trona (Sodium) | #13624-41 | Wyoming has the world's largest deposit of high quality trona. Trona processed into soda ash has numerous high value uses including, but not limited to, the manufacture of solar glass for photovoltaic panels and batteries for electric vehicles and has applications in, water treatment, pollution control and battery energy storage. The Administration has stated that expanding renewable energy and electric vehicle production is a priority. Because trona is the base mineral product for the manufacture of solar panels and electric vehicle batteries, the BLM should explain how closing approximately 2.2 million acres to trona leasing impacts those priorities. BLM should also provide the scientific basis for exclusion of those acres from exploration and future development of trona products. WDEQ has successfully permitted and regulated the development and commercial operation of trona facilities currently operating in Wyoming. Our experience is that those facilities can, and do, meet environmental standards. Overly restrictive conservation of the resource is not necessary in Wyoming because development of the trona resource has and can continue to be done in a manner that protects human health and environment. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809.03 - Trona (Sodium) | #13624-42 | The Draft RMP/EIS states that 49,224 acres would be closed to trona leasing and development within the Known Sodium Leasing Area (KSLA). Draft EIS, § 4.11.3, p. 4-135. Map 6 is a map of the RMP with overlays of the KSLA and right-of-way exclusions. Because right-of-way exclusions do not allow the development of roads or pipelines, BLM should explain how trona development could occur in the southern portion of the KSLA. BLM should also address the fact that right-of-way exclusions appear to prohibit access to major rail and interstate networks along I-80. See Map 4. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809.03 - Trona (Sodium) | #13624-43 | It is unclear how BLM determined that 49,135 acres should be closed to trona development in the KSLA. It is also unclear if the 49,135 acres also references the cumulative impact of the application of all management actions. For example, based on information available in the Draft RMP/EIS, the total acreage representing right-of-way exclusions, wild and scenic, and visibility management Classes I and II could total approximately 153,000 acres. See Map 1. Based on BLM data in the Draft RMP/EIS, it appears that non-BLM checkerboard sections in the northern portion of the KSLA cannot be developed due to the right-of-way exclusions on the BLM sections; this would result in an addition of approximately 83,000 acres excluded within the KSLA. Additionally, the portion of the KSLA west of the Flaming Gorge Reservoir and south of the right-of-way exclusions could not be effectively developed due to access restrictions. This would exclude an additional acreage of approximately 157,000 from development. Based on these assumptions, a total of approximately 393,000 acres would be closed in the KSLA. | Appendix V contains a description of the areas determined "No Leasing" for sodium. |

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| | | BLM should provide how access to develop trona fields would be possible or an analysis of why access for trona development is to be denied in those areas. | |
| 809.03 - Trona (Sodium) | #13702-7 | MA 4421 Alternative B- closes these areas to material sales and closes these areas to all solid mineral (trona and coal) leasing due to No Surface Occupancy. This is not acceptable. Big game migration corridors also need protections, and their locations are a matter of research and on-going monitoring by WGFD. Accurate evaluation of the impact of these migration corridors is very difficult until WGFD releases the latest migration corridors map. | MA 4421 is referencing WGFD designated crucial winter range, migration corridors, and parturition areas. Impacts from WGFD designations are outside the scope of this EIS. The BLM is proposing management actions within these WGFD designated areas on BLM land. For impacts to BLM proposals, see Chapter 4. |
| 809.03 - Trona (Sodium) | #13751-1 | However, the Draft BLM Rock Springs Resource Management Plan and Draft EIS does not achieve this balance and would set precedent for federal agencies to expand their regulatory regimes in a manner that will make access and permitting for alkali products more complex, expensive, and challenging while failing to achieve appreciable environmental or human health benefits. Some of the proposed management actions could even make economical extraction of this unique trona resource essentially impossible. Therefore, Genesis Alkali respectfully requests BLM immediately withdraw the Draft RMP and Draft EIS, complete sage grouse and other important actions, conduct more collaboration, take input from cooperating agencies and interested parties, carefully consider comments and then revise the document, and re-publish it. In the event that BLM does not withdraw the Draft RMP/DEIS as requested, in an abundance of caution we also provide detailed comments on this hurried proposal. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. Public participation and cooperating agency participation is described in Table 5.1. See also Section 1.4 for the planning criteria. |
| 809.03 - Trona (Sodium) | #13751-2 | As a result, any BLM management actions that limit the development of new production or cause the decline of existing natural soda ash production in the Green River basin would, in effect, prevent that soda ash production from happening anywhere in the United States. Because soda ash is critical for the production of other essential products, production that cannot occur in the US will almost certainly move to foreign nations, most likely China, and will likely be produced using synthetic soda ash production technology. Over 40% of the worlds soda ash production already occurs in China and given the rarity of trona resources worldwide, the vast majority of that is synthetic soda ash production. | Trona production is analyzed under Appendix T (Cumulative Impacts) for the CIAA (Cumulative Impacts Analysis Area) on page T-29. |
| 809.03 - Trona (Sodium) | #13751-3 | Synthetic soda ash production uses salt, limestone, and ammonia to produce soda ash, rather than trona. This process is much more complicated and more energy intensive compared to natural soda ash production trona. US natural soda ash production from trona uses less than 50% of the energy and results in 37% less greenhouse gas emissions for each ton produced compared to synthetic soda ash production. Any reduction in ability to produce natural soda ash in the KSLA will not only move that production to foreign nations but will result in higher energy consumption and greenhouse gas emissions. | The scope of air quality analysis is defined in Chapter 4 under 4.3 Air Quality. |
| 809.03 - Trona (Sodium) | #13751-4 | The current Green River RMP (1997), Appendix 1 (page 108) states the following in regard to the KSLA: "Public comment on the RMP Draft EIS recommended consideration of the KSLA for ACEC designation due to an outstanding mineral of regional/national importance. However, the potential for ACEC designation should consider the entire KSLA as a whole and most of the area is within the Kemmerer Resource Area. This area would be deferred for special study and analyzed separately from this document." The definition of an Area of Critical Environmental Concern (ACEC) does not only include areas recommended for conservation but also for unique natural resource value such as the unique trona mineral resource in the KSLA. The KSLA is the only place in the world where such a unique trona resources is found to this extent and purity. In 1997 BLM recognized the KSLA as an area that was deferred for special study and analyzed separately from the RMP; BLM should include the results of that study in this RMP/DEIS. It is unfortunate that ACEC's have become narrowly focused on environmental conservation, and not on overall unique resource protection. We are not recommending the KSLA as an ACEC due to the potential conflict with the current use of the term ACEC. However, we are providing this comment to highlight the fact that the KSLA is worthy of special recognition in the RMP. Within the KSLA, there should be no new management actions beyond the current RMP management actions, until the results of the special study is completed. In other words, as provided in the 1997 comment, the KSLA should be designated as a special study area for the trona resource value, analyzed separately from the RMP document, and in the meantime the existing RMP management actions (Alternative A) should continue to be utilized in the KSLA without change. Further, when the Kemmerer RMP is next reviewed the KSLA in that planning area should also be considered in the same manner. | ACEC nominations and evaluations are included in Appendix C. Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). |
| 809.03 - Trona (Sodium) | #13751-28 | Vol. II, Table U-1 Summary of Impacts, by Resource, more particularly page 7 of 19. The following language summarizes the impact to Trona of Alternative B. "Impacts to trona development would be similar to those described under Alternative A, except more areas would be closed to trona leasing and development. Under Alternative B, 49,224 acres would be closed to trona leasing and development within the KSLA (Map 2-10), which represents a 101% increase compared to Alternative A. This would increase the level of impacts to trona development and could result in further reduction of trona extracted via mining activities." This statement is entirely inaccurate. The notion that B's impact would be similar to the No Action Alternative is absurd. The so-called "Comparative Summary of Impacts" is inaccurate and reflects BLM's failure to properly summarize the impacts on the Trona industry. Concluding the only difference in impacts to the Trona industry within the KSLA is the added acreage withdrawn from leasing completely ignores the impact of the extended right of way exclusion areas, ACEC's, WSA's, VRM's, trail buffer zones, etc. Many of the exclusion areas overlap existing trona leases and trona operations and significant impacts will be felt by existing operations. The analysis is fundamentally flawed and | Impacts from all four alternatives can be found in Chapter 4, including for special designations, rights-of-way exclusion areas, and solid mineral leasing and restrictions. Table U-1, only briefly summarizes the impacts of the actions proposed under each alternative, organized by resource management program. A detailed discussion of the environmental consequences of the actions proposed under each alternative is presented in Chapter 4. Tables 2-3 through 2-12 are in Appendix V. |

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| | | misrepresents the impact of Alternative B on the Trona industry and the private mineral holdings within the area. Further, it does not inform the public of the consequences of the proposed action as required by NEPA. | |
| 809.03 - Trona (Sodium) | #13751-38 | The Solid Mineral Occurrence and Development Potential Report is dated August 2012. Further, much of the data in the report is even older. Page 5-18 "The occurrence of REEs in the RSPA is described in Chapter 3.2.7. There are no known deposits of REE in the RSPA. To date there has been no systematic sampling for or evaluation of REE in the RSPA. However, the WSGS is currently conducting a statewide study, scheduled for completion in mid 2013, to identify, characterize and catalog REE deposits throughout the state." This report and several others related to REEs has been completed and must be incorporated into the RMP for completeness. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Socioeconomic analysis is covered in Appendix N, including data assumptions and the timeframe of the analyses. See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 809.03 - Trona (Sodium) | #13751-39 | The Solid Mineral Occurrence and Development Potential Report is dated August 2012. Page 5- 24 "Although trona (soda ash) market demand decreased during the global economic slowdown starting in 2008, causing decreased prices and production, the global soda ash industry is showing positive signs of recovery. The 2010 production level at more than 16.5 million tons was up by more than 2 million tons over the 2009 level. In addition, several substantial soda ash price increases have already occurred in 2012. Along with the recovery has come interest by several producers in the possibility of future additional leasing adjacent to existing mines although no firm proposals have been submitted to date. It is expected that during the planning period, current mines or expansions to those mines could accommodate currently projected future demand increases and no new mines will be proposed. However, if the soda ash market undergoes a significant rebound during this time, the situation could change. In addition to new leasing to expand existing mines, new leasing and proposals for in situ recovery could be submitted for BLM consideration." This information is like reading from a history book. The information is outdated on all accounts and must be updated before the RMP can be considered complete or accurate. As an example, the outdated information discusses potential new leasing which has been completed in the southern part of the Known Sodium Leasing area along with an EIS. To be up-to-date and complete, the RMP must include this updated information. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Socioeconomic analysis is covered in Appendix N, including data assumptions and the timeframe of the analyses. See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 809.03 - Trona (Sodium) | #13751-95 | BLM failed to analyze the KSLA under a special study as discussed in the 1997 RMP. The unique trona resource in southwest Wyoming deserves such recognition and treatment. It is the only location in the world where such a unique resource is found. | ACEC nominations and evaluations are included in Appendix C. Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). |
| 809.03 - Trona (Sodium) | #13751-122 | MA #2408 ALT A The Known Sodium Leasing Area (KSLA) is open to sodium exploration and consideration for leasing and development but closed to prospecting permits. Industry position: Not acceptable Reason: Industry agrees with most of this language but recommends that prospecting be allowed because it is an existing right held by some operators. ALT B C AND D The KSLA is open to sodium (trona) exploration and consideration for leasing and development. Industry position: Not acceptable. Reason: Industry agrees with the language of this alternative. However, there is a serious conflict between the language of this alternative and language in Chapter 4 page 4-135. The Chapter 4 language states that "Under Alternative B, 49,224 acres would be closed to trona leasing and development within the KSLA (Table 2-7, Map 2-10), which represents a 101% increase compared to Alternative A. This would increase the level of impacts to trona development and could result in further reduction of trona extracted via mining activities." The language in Chapter 4 page 4-135 contradicts the language in MA#2408 Alternative B. These two sections contradict each other. Language in Chapter 4 page 4-135 needs to conform to the language in MA#2408 Alternative B to be acceptable to industry. The industry position is that the KSLA is open to trona leasing and development. | Alt A is current management of the planning area. Trona management for all four alternatives is described in Management Actions 2408-2411 and impacts from each of the four alternatives can be found in Chapter 4. |
| 809.03 - Trona (Sodium) | #13751-123 | MA #2409 ALT A Sodium (trona) leasing would be considered on a case-by-case basis and is subject to the same conditional requirement as oil and gas and coal, and the general management direction applied in this RMP. Industry position: Not acceptable Reason: Recovery and processing are fundamentally for trona rather than for coal or oil and gas. Trona is not a hydrocarbon. Leasing should follow NEPA procedures. | Alt A is current management of the planning area. Trona management for all four alternatives is described in Management Actions 2408-2411 and impacts from each of the four alternatives can be found in Chapter 4. |
| 809.03 - Trona (Sodium) | #13751-124 | MA #2411 Alternative A B C D The known sodium leasing area is open to exploration and consideration for leasing and developments but is closed to prospecting permits. The remainder of the planning area is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities (areas closed to drilling, off road vehicle use, and explosive charges). Sodium (trona) leasing will be considered on a case-by-case basis, and is subject to the same conditional requirements as oil and gas and coal, and the general management direction applied in this RMP. Industry position: Not acceptable Reason: Same as MA#2408 and 2409. Industry recommends that if sodium leasing is considered outside of the KSLA that other resources be protected by NEPA procedures rather than blanket restrictions or closures. | Trona management for all four alternatives is described in Management Actions 2408-2411 and impacts from each of the four alternatives can be found in Chapter 4. Additionally, Prospecting Permits are allowed as per 43 CFR 3505.10. the KSLA is a defined leasing area and therefore requires an Exploration License as per 43 CFR 3506 |
| 809.03 - Trona (Sodium) | #13751-125 | MA #4209 ALT B Prohibit actions involving the transfer of water from watersheds with aquatic invasive species or fish diseases to other waters. Industry position: Not acceptable Reason: Industry recognizes the ecological harm presented by aquatic invasive species and fish diseases and supports preventing their spread. However, the geographic reach of this prohibition is not clear and needs to be clarified. This prohibition allows no transfer of water for beneficial use for industrial purposes wherein water could be stored or treated and not immediately returned to receiving waters. ALT DProhibit, except to protect life and property, and to prevent the spread of aquatic invasive species, the movement of water from one fourth level (8-digit hydrological unit code) watershed to another fourth level another fourth level (8-digit hydrological unit code) watershed. If movement of water has | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 4200-4213 |

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| | | occurred, WGFD will be contacted so that they can begin a monitoring program. Industry position: not acceptable Reason: Industry notes that Map 3-1 Water Resources shows two hydrological unit boundaries within the KSLA. One boundary is in the southern and eastern KSLA and divides the Blacks Fork and the Upper Green-Flaming Gorge hydrological units. The second is in the northern KSLA and divides the Blacks Fork and Upper Green hydrological units. Any transfers of water would be for beneficial use for industrial purposes and may include solution mining. Water for solution mining would be process water and subject to WYPDES discharge requirements or long term storage. | |
| 809.03 - Trona (Sodium) | #13775-1 | While the above referenced portion in Chapter 4 states that 49,224 acres in the KSLA will be closed trona leasing, there is no reference to the closure of these acres in Chapter 2's detailed breakdown of each alternative by Management Action (MA). In MA#2408 and 2409, BLM states that under the Preferred Alternative, "The KSLA is open to sodium (trona) exploration and consideration for leasing and development,5" without any qualification or mention of the closed acres. Nor does any other mention of the closed acres appear anywhere else in the Draft RMP other than the singular mention in Chapter 4. These two facts are inherently at odds with one another; BLM-WY cannot on one hand claim that the entire KSLA is ostensibly open to trona leasing as in Chapter 2 yet also claim it will be closing a substantial portion of that same area to leasing and operations | Appendix V identifies closure to sodium leasing, including closures that may be coming from special management designations or other resources that are beyond those listed specifically for trona in MA 2408 and 2409. |
| 809.03 - Trona (Sodium) | #13787-2 | On August 7, 1981 BLM's District Manager includes a cover letter in the BLM Draft Environmental Assessment of Sodium Mineral Development in the Rocks Springs District (BLM Document WY-049-EA81-8). The cover letter includes the following: "The regional Sodium Mineral Development Draft Environmental Assessment that follows, analyzes the use of a resource that is of international as well a national importance. The trona deposition area within three resource areas of the Bureau's Rock Springs District is presently recognized as the world's largest commercial source of natural soda ash which is used in the production of a wide range of goods -from the glass in your car's windshield to the soap used to clean your clothes. The Bureau of Land Management is obligated to the nation to assure that this unique resource is developed in the best interest of the public…" The Background Section of Sodium Mineral Document WY-049-EA81-8 (page 3) goes on to explain the size and quality of the trona resource as follows: "The trona deposits in Southwest Wyoming represent the largest known commercial source of natural soda ash in the world (Culbertson 1966, Innes 1980). Culbertson (1966) estimated major trona and trona/halite deposits under a 1,400 square-mile area of the Green River Basin at 113 billion tons, including 67 billion tons of halite-free trona in 25 beds, each more than 3 feet thick and ranging in areal extent from 100 to 1,000 square miles. Culbertson and Burnside in a subsequent study (1979) estimated total Southwest Wyoming deposits at 134 billion tons. Trona occurs in only a few places around the world and rarely in commercial quantities…Synthetic soda ash has been made for many years by the complex Solvay process. The natural soda ash proved to be of higher purity, because it contained less sodium chloride contaminant. Also, plants producing soda ash from trona require considerably less energy, labor, and maintenance than plants using the Solvay process (Kostick 1980)." | Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). |
| 809.03 - Trona (Sodium) | #13787-3 | Trona mined and processed in the Known Sodium Leasing Area (KSLA) in the Green River Basin is used to produce approximately 12 million tons of natural soda ash, with the industry providing 2300 direct jobs, nearly $400 million in payroll, and about $100M in local, state, and federal taxes and royalties. Soda ash is a critical input for the manufacture of many other essential products including glass, lithium carbonate for batteries, and baking soda for foodstuff. Trona resources of a substantial quantity and purity to support commercial natural soda ash production are rare worldwide, including the rest of the United States outside of the KSLA. There is no other location in the US that contains trona resources in the quantity and purity necessary for the development of new substantial production of natural soda ash. BLM management actions that limit the development of new production or cause the decline of existing natural soda ash production in the Green River basin would, in effect, prevent that soda ash production from happening anywhere in the United States. | Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809.03 - Trona (Sodium) | #13787-4 | Because soda ash is critical for the production of other essential products, production that cannot occur in the US will almost certainly move to foreign nations, most likely China, and will likely be produced using synthetic soda ash production technology. Over 40% of the worlds soda ash production already occurs in China and given the rarity of trona resources worldwide, the vast majority of that is synthetic soda ash production. Synthetic soda ash production uses salt, limestone, and ammonia to produce soda ash, rather than trona. This process is much more complicated and more energy intensive compared to natural soda ash production trona. US natural soda ash production from trona uses less than 50% of the energy and results in 37% less greenhouse gas emissions for each ton produced compared to synthetic soda ash production. Any reduction in ability to produce natural soda ash in the KSLA will not only move that production to foreign nations but will result in higher energy consumption and greenhouse gas emissions, all of which are in direct conflict to goals of the Biden Administration. | Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 809.03 - Trona (Sodium) | #13787-12 | Page 4-6 forth bullet of the Draft RMP/DEIS includes the following "The magnitude of and increases in estimated emissions from solid mineral development, including surface mining of coal and trona, at the level of development predicted for all alternatives over the life of the plan have the potential to cause impacts related to fugitive dust and increased ozone formation, visibility degradation, and atmospheric deposition." Likewise on page 4-11 "The quantities of emissions estimated from fluid mineral development and solid mineral development activities are | Air Quality Management Actions can be found in #1000-1017, with impacts from each of the four proposed alternatives described in Chapter 4. See also Appendices P and Q. Additionally, see Section 1.4 for Planning Criteria and Appendix E for a list of regulations, laws and policies that apply to this EIS. |

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| | | based on reasonably foreseeable estimates of development rates, well counts, production rates, and existing technologies. The estimated emissions should not be considered definitive and may not reflect actual emissions at the time of development, due to the unknown future demand for mineral development over the life of the plan. Although the quantity of emissions calculated for this category may not represent actual emissions from eventual development, the magnitude of estimated emissions of several pollutants for this source category is considerable. Emissions of PM10, VOCs, and NOX from this category have the highest potential to impact air quality under each of the alternatives. These impacts could include increased ambient concentrations of NOX and increased ozone formation in summer and winter." It is well understood that NOx and VOCs emissions contribute to ozone formation; however, these statements should also include a disclaimer that the WDEQ concluded that the trona mines do not contribute to the ozone non-attainment area due to the wind trajectories. This information was concluded by the WDEQ and agreed to by the EPA in 2011 and was the basis for the ozone non-attainment boundary. Likewise, the 1998 visibility study also concluded the trona mines had no impairment on the basin. Further, the WDEQ has recently completed the regional haze glide path review which does not indicate trona (or coal for that matter) as significant contributors to visibility degradation. EPA regulates regional haze at Title 40 (Protection of Environment) of the Code of Federal Regulations (CFR, WY SIP) §51.308. Any effort by the BLM to regulate the same is redundant and an overreach. | |
| 809.03 - Trona (Sodium) | #13787-17 | Because of the rare and unique nature of the trona mineral resource, BLM management actions that exclude any of the activities necessary for trona mining and natural soda ash production must be avoided within the KSLA in favor of a reasonable case-by-case evaluation basis being the norm! Continued development of the trona resource in the KSLA is consistent with BLM Manual 1601, Land Use Planning, Section 3(U) BLM's Authority is granted under the Mining and Minerals Policy Act of 1970 that "aims to encourage private enterprise in the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries. It also promotes the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs." Further, the Section 102 (43 U.S.C 1701), the Congressional Declaration of Policy, of the Federal Land Policy and Management Act of 1976 states that "(a)The Congress declares that it is the policy of the United States that--…" and then "(a)(12) the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970 (84 Stat. 1976, 30 U.S.C 21a) as it pertains to the public lands;". Management actions that exclude leasing and preclude the necessary building and ROWs such that there is not a reasonable opportunity for full development of this unique and essential mineral are contrary to Congressional Policy as stated in FLPMA. | Trona's uniqueness is detailed in Chapter 3 under 3.15.4 Trona (Sodium). The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. |
| 809.03 - Trona (Sodium) | #13787-19 | Mining and reclamation of flood plains, ephemeral streams, wetlands, riparian areas, or mining areas near them is also proven successful in protecting water quality and meeting water quality standards. The WDEQ-LQD has state primacy and regulates these mining activities through the mine permit. | The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. |
| 809.03 - Trona (Sodium) | #13787-50 | MA #2408 MR-02, MR-04 The Known Sodium Leasing Area (KSLA) is open to sodium exploration and consideration for leasing and development but closed to prospecting permits. Industry position: Not acceptable Reason: Industry agrees with most of this language but recommends that prospecting be allowed because it is an existing right held by existing operators. The KSLA is open to sodium (trona) exploration and consideration for leasing and development. Industry position: Not acceptable Reason: Industry agrees with the language of this alternative. However, there is a serious conflict between the language of this alternative and language in Chapter 4 page 4-135. The Chapter 4 language states that "Under Alternative B, 49,224 acres would be closed to trona leasing and development within the KSLA (Table 2-7, Map 2-10), which represents a 101% increase compared to Alternative A. This would increase the level of impacts to trona development and could result in further reduction of trona extracted via mining activities." The language in Chapter 4 page 4-135 contradicts the language in MA #2408 Alternative B. These two sections contradict each other. Language in Chapter 4 page 4-135 needs to conform to the language in M A#2408 Alternative B to be acceptable to industry. The industry position is that the KSLA is open to trona leasing and development. Same as Alternative B. Industry position: Not acceptable Reason: Industry agrees with the language in this alternative. However, as with Alternative B, there is a serious conflict between this language and the language in Chapter 4 page 4-136 which states "Under Alternative C, 21,412 acres would be closed to trona leasing and development within the KSLA (Table 2-7, Map 2-11), which represents a 12% decrease compared to Alternative A. This would reduce related impacts to trona mining activities, as more areas would be available for such mining. The Chapter 4 language contradicts the MA #2408 language. Language in Chapter 4 page 4-136 needs to conform to the language in MA #2408 Alternative C to be acceptable to industry. The industry position is that the KSLA is open to trona leasing and development. Same as Alternative B. Industry position: Not acceptable Reason: Industry agrees with the language of this alternative. However, as with Alternatives B and C, there is a serious conflict between this language and the language in Chapter 4 page 4-137 which states "Impacts to trona development would be the same as those described under Alternative A. Under Alternative D, 24,290 acres would be closed to trona leasing and development within the KSLA, which represents a <1% decrease compared to Alternative A (Table 2-7, Map 2-12). Again, the language in Chapter 4 page 4-137 | Appendix V identifies areas closed to sodium leasing. Prospecting Permits are allowed as per 43 CFR 3505.10. the KSLA is a defined leasing area and therefore requires an Exploration License as per 43 CFR 3506 |

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| | | contradicts and effectively negates the language in MA #2408 Alternative D. The language in Chapter 4 needs to conform to the language in MA #2408 Alternative D to be acceptable. The industry position is that the KSLA is open to trona leasing and development. KSLA is open to trona exploration, consideration for leasing, and prospecting. Language is taken from Alternative B with prospecting added. | |
| 809.03 - Trona (Sodium) | #13787-51 | MA #2409 MR-02, MR-04 Sodium (trona) leasing would be considered on a case-by-case basis and is subject to the same conditional requirement as oil and gas and coal, and the general management direction applied in this RMP. Industry position: Not acceptable Reason: Recovery and processing are fundamentally for trona rather than for coal or oil and gas. Trona is not a hydrocarbon. Leasing should follow NEPA procedures. | Management actions for all four alternatives for other leasable minerals are identified in the DEIS in management actions 2400-2419. |
| 809.03 - Trona (Sodium) | #13880-4 | At this point, it is important to note that a blanket one-size-fits-all approach to ROW or other restrictions is not the most effective way to conduct business. Again, drawing from the work put forward by the task force, I will point you to the agreements made regarding the Known Sodium Leasing Area (KSLA). The KSLA comments submitted achieved full consensus thanks to the efforts of both the conservation and mining communities. Those comments take into account responsible development of our natural resources, practical stipulations, and a flexibility that allows for decisions to be made by the people most familiar with the land and its many varied resources. | Management actions for all four alternatives for rights-of-way are identified in the DEIS in management actions 6200-6210. |
| 809.03 - Trona (Sodium) | #13899-76 | We support Alternative B, management action 2408, which establishes that the "[Known Sodium Leasing Area] is open to sodium (trona) exploration and consideration for leasing and development."196 There is no management action listed in Table 2-1 Resource Management Plan Alternatives that mentions closing areas in the Known Sodium Leasing Area (KSLA) to leasing for trona. However, there are areas shown on Map 2-9 Solid Leasable Minerals- Alternative A, Map 2-10: Solid Leasable Minerals-Alternative B and Map 2-12 Solid Leasable Minerals-Alternative D that show areas closed to trona leasing across the field office, including within the KSLA. And BLM notes that under the current Green River RMP and Alternative A in this draft RMP, 24,458 acres within the KSLA are closed to leasing and under Alternative B this would double to 49,224 acres closed to trona leasing in the KSLA.197 These closures are also listed in the draft RMP Volume 2, Table 2-7. BLM must clarify in Table 2-1 and MA 2408 the amount of acreage closed across the alternatives given these closures are mapped.[...] We believe the only necessary restrictions on trona leasing within the KSLA is for the Devil's Playground-Twin Buttes WSA complex (a Congressionally mandated closure) and in line with[...] protections for greater sage-grouse leks, including no surface disturbances within .6 miles of leks. We do not believe areas of big game winter range in the KSLA should be closed to leasing.198 Rather, conditions on development - through the permitting of surface infrastructure - is appropriate. The proposed prohibitions on surface disturbance for the Oregon-California-Mormon National Historic Trails viewshed corridor (up to five miles on each side of the trail in Alternative B) can be modified to be "up to ½ mile" within the KSLA and should not be applied to restrict trona leasing. | Appendix V identifies closure to sodium leasing, including closures that may be coming from special management designations or other resources that are beyond those listed specifically for trona in MA 2408 and 2409. |
| 809.03 - Trona (Sodium) | #13899-77 | While the existing trona mines in the Green River Basin are underground mines (with associated processing plants and infrastructure on the surface) the future of trona mining may well add surface disturbance and bring the mining activities into greater conflict with other resources, such as wildlife habitats. There are currently two proposals for in-situ solution mining for trona - both in the Kemmerer Field Office. These proposals have the potential for significant surface disturbance through the construction of well pads and roads. A plan revision or amendment may be necessary in the future if the industry continues to pursue in-situ mining, given the assumptions underlying leasing areas in this draft RMP are for underground mining. | Management actions for solid mineral leasing (trona) can be found in actions 2408-2411. These actions apply to all trona leasing, regardless of recovery method. |
| 809.04 - Oil Shale | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1. |
| 809.04 - Oil Shale | #13210-48 | 2413 Alternative A* Specify that while the preliminary EIS refers to "application for leasing for commercial oil shale development," the BLM could publish in the Federal Register one or more additional requests for expressions of interest in Research Development and Demonstration (RD&D) leasing within one or more of the states of Colorado, Utah, and Wyoming. Any new RD&D lease would have to be consistent with the applicable BLM land use plans. In the management action prioritization exercise, all voting members submitted the same preferred alternative. These recommendations were not discussed during the meetings, but task force members approved their inclusion in the final report. Interest in RD&D leasing for oil shale remains low, thus the task force prefers maintenance of the status quo under Alternative A. | MA 2413 is the existing management for Alternative A. Management actions for all four alternatives for oil shale are identified in the DEIS in management actions 2412-2419. Public Participation associated with the EIS is detailed in Chapter 5 under 5.2. |
| 809.04 - Oil Shale | #13210-49 | 2415 Alternative A* Specify that commercial leasing would occur utilizing a lease by application process. The process would require that additional NEPA analysis be conducted prior to lease issuance. Information collected as part of the lease application process would be incorporated into the NEPA analysis. In the management action prioritization exercise, all voting members submitted the same preferred alternative. These recommendations were not discussed during the meetings, but task force members approved their inclusion in the final report.Interest in commercial leasing for oil shale remains low, thus the task force prefers maintenance of the status quo under Alternative A. | Management actions for all four alternatives for oil shale are identified in the DEIS in management actions 2412-2419. Public Participation associated with the EIS is detailed in Chapter 5 under 5.2. |

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| 809.04 - Oil Shale | #13210-50 | 2416 Alternative A* Specify that approval of the project-specific operating plan would require NEPA review to consider site-specific and project specific factors. The NEPA review for the operating plan may be incorporated into NEPA for the lease application if adequate operational data are provided by the applicant(s). In the management action prioritization exercise, all voting members submitted the same preferred alternative. These recommendations were not discussed during the meetings, but task force members approved their inclusion in the final report. Interest in commercial leasing for oil shale remains low, thus the task force prefers maintenance of the status quo under Alternative A. | Management actions for all four alternatives for oil shale are identified in the DEIS in management actions 2412-2419. Public Participation associated with the EIS is detailed in Chapter 5 under 5.2. |
| 809.04 - Oil Shale | #13210-51 | 2417 Alternative A* Specify that the BLM would consider and give priority to the use of land exchanges, where appropriate and feasible, to consolidate land ownership and mineral interests within the oil shale basins. In the management action prioritization exercise, all voting members submitted the same preferred alternative. These recommendations were not discussed during the meetings, but task force members approved their inclusion in the final report. Interest in commercial leasing for oil shale remains low, thus the task force prefers maintenance of the status quo under Alternative A. | Management actions for all four alternatives for oil shale are identified in the DEIS in management actions 2412-2419. Public Participation associated with the EIS is detailed in Chapter 5 under 5.2. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #142-4 | nder Alternative B, mineral resource # 2507 and heritage and visual resource # 5303, hobby collection of petrified wood would no longer be allowed without written authorization. Impacts from hobby collection of petrified wood are minimal. Most areas with petrified wood have existing roads and trails to them and many hobbyists practice leave no trace principles. | Management actions for all four alternatives for petrified wood are identified in the DEIS in management action 2507. It is further addressed in Chapter 4 Page 4-156 Section 4.13.3. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | See Glossary for a definition of 'surface disturbing activities'. Management actions for all four alternatives for salable minerals are identified in the DEIS in management actions 2500-2507 |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #9853-5 | SVP prefers an alternative that would prohibit, or minimally strongly discourage or limit, any forms of mineral resource activities where very high potential for paleontological resources exists, particularly if areas of interest have the Potential Fossil Yield Classification (PFYC) rating of "4" or "5". For any lands of interest, no mineral activity permits should be issued prior to each mineral activity without proper paleontological surveys and any necessary excavations/mitigations by qualified paleontologists, including BLM paleontologists. While 'no mineral activities' is the most preferred option for SVP, we must note that an elaborate plan for best practices for mineral (including oil, gas, and coal) explorations at paleontologically sensitive sites must be in place if alternatives that allow such explorations are selected. We have attached below (Appendix 2) our generic paleontological resources management plan that pertains to energy and mineral activities, including oil and gas explorations. SVP hopes BLM will adopt the suggested best practices in Appendix 2 for the areas of concern in this present case (DOI-BLM-WY-D040-2011-0001-RMP-EIS) in consultation with the bureau's own paleontologists in the region. | Management actions for all four alternatives for salable minerals are identified in the DEIS in management actions 2500-2507 |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #10225-1 | Sweetwater County and the City of Rock Springs subsidies make up a sizeable portion of our budget. We are dependent on these subsidies to provide many essential services to the aging and mobility challenged population as well as the youth of Sweetwater County. The services that Young at Heart provides are the following: Congregate meals for the community having served approximately 6,891 meals in 2022 This year to date we have recorded 10,836 meals. Home delivered meals totaling around 42,000 in 2022, and social entertainment totaling approximately 17,708 hours (pool, poker, card games, and dominoes). We offer In-Home Services which provides light housekeeping and small chores to more than 92 clients in the Rock Springs and Green River areas. Additionally, we provide In-Home Health services assisting more than 15 patients. And finally we have our Early Learning Center providing children with quality education which serves more than 100 families. Therefore reduction in any of these revenue streams would severely impact, if not totally eliminate some of all of these services. In fact, it could force the closure of the Center altogether. Historically and currently mineral extraction is a mainstay in our local economy. Monies from industrial impacts, mineral severance, sales taxes, etc. flow into the local government budgets to support essential services. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13218-1 | I am concerned that Alternative B would have a detrimental effect on Wyoming's energy and mineral industries. Alternative B would substantially decrease the opportunity for oil and gas development, coal development, and other mineral development. Alternative B would close 2,122,282 acres to oil and gas development, 3,735,526 acres to coal development, 2,581,741 acres to mineral material sales and disposals, and 49,224 acres to trona leasing and development within the known sodium leasing area. The acres closed for oil and gas development is a 192% increase compared to Alternative A (the current management standard for the Rock | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |

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| | | Springs planning area); for coal development, a 433% increase compared to Alternative A; for mineral material sales and disposals, a 209% increase compared to Alternative A; and for trona leasing and development, a 101% increase compared to Alternative A. This is an extreme increase in the number of acres closed compared to Alternative A and this would have the greatest negative impact on solid mineral leasing and development, saleable mineral development, and trona development. | |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13241-1 | Alternative B would have a devasting overall economic impact on Wyoming. Under Alternative B, the estimated economic output is $12.6 billion dollars, the estimated total labor earnings are $2.3 billion dollars, and the estimated total local and state revenues from mineral production is $800 million dollars. This is an extreme decrease from the other alternatives. For example, under Alternative A, the estimated economic output is $29.9 billion dollars, the estimated total labor earnings are $5.4 billion dollars, and the estimated local and state revenues from mineral production is $2.3 billion dollars. The total economic output is 52.3% lower under Alternative B than Alternative A and the total labor earnings are 55.8% lower under Alternative B than Alternative A. In addition, the average annual jobs would also decrease as Alternative B would generate only 2,707 jobs compared to Alternative A generating 6,157 jobs. Most significantly, the total local and state revenues would decrease annually under Alternative B. For example, ad valorem taxes would decrease by 52.4%, severance taxes would decrease by 55.1%, and the state's share of federal mineral royalties would decrease by 52.7%. The total local and state revenues are "52% to 55% lower under Alternative B than Alternative A" and "all quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A." The reduction in revenues for oil and gas development is due to "the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production." I am totally concerned that Alternative B would have a detrimental effect on Wyoming's economy. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13330-17 | * Sweetwater County Farm Bureau is opposed to the Alternative B proposed withdrawal of 258% lands from more land from any potential mineral extraction and 305% more lands from oil and gas extraction. Many of our members hold jobs in these sectors to provide supplemental income. Agriculture producers value mineral and oil and gas production in our area. Additionally, such withdrawals would decimate our local economy and the Alternative B proposal directly violates the Domestic Minerals Program Extension Act of 1953, The Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the Energy Policy Act of 2005. | See Glossary for a definition of 'withdrawal', which does not apply to leasable minerals. The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13542-29 | MA#2505. Alternatives A, B, C, and D. 2-47 The BLM should consider an alternative that allows for topsoil sale areas because mining activities are required by state law and BLM regulations to reclaim surface disturbances using topsoil; therefore, the agency should study and disclose to the public such environmental impacts across a reasonable range of alternatives. If the BLM is going to continue to analyze not allowing for topsoil sales under all alternatives, then it needs to analyze the environmental impacts from trucking in topsoil to reclaim all BLM authorized surface disturbances to the specifications required by law on lands within the Rock Springs Field Office. | Impacts and analysis from mining activities as they relate to soil resources can me found in Chapter 4 under 4.4.1 for all four alternatives. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13787-9 | Similarly, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Further, much of the data in the report is even older. For example, page 5-18 states that "The occurrence of REEs in the RSPA is described in Chapter 3.2.7. There are no known deposits of REE in the RSPA. To date there has been no systematic sampling for or evaluation of REE in the RSPA. However, the WSGS is currently conducting a statewide study, scheduled for completion in mid-2013, to identify, characterize and catalog REE deposits throughout the state." This report and several others related to REEs has been completed and must be incorporated into the RMP for completeness. Finally, as another example, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Page 5-24 states that "Although trona (soda ash) market demand decreased during the global economic slowdown starting in 2008, causing decreased prices and production, the global soda ash industry is showing positive signs of recovery. The 2010 production level at more than 16.5 million tons was up by more than 2 million tons over the 2009 level. In addition, several substantial soda ash price increases have already occurred in 2012. Along with the recovery has come interest by several producers in the possibility of future additional leasing adjacent to existing mines although no firm proposals have been submitted to date. It is expected that during the planning period, current mines or expansions to those mines could accommodate currently projected future demand increases and no new mines will be proposed. However, if the soda ash market undergoes a significant rebound during this time, the situation could change. In addition to new leasing to expand existing mines, new leasing and proposals for in situ recovery could be submitted for BLM consideration." This information is like reading from a history book. The information is outdated on all accounts and must be updated before the RMP can be considered complete or accurate. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13865-19 | D. MA #4424 It is unclear if MA #4424 applies only to fluid minerals or to all surface disturbances, as the language differs between Alternatives B, C, and D. If the intent is to apply a ½ mile buffer around big game migratory corridors for all surface disturbances, this could impact PacifiCorp's ability to operate its system, serve customers, and meet project reclamation requirements. Big game routinely cross underneath power lines and utilize power line ROWs, renewable energy sites, and mine reclamation areas as habitat. BLM has failed to provide supporting evidence that prohibiting surface disturbance will benefit migrating big game. Likewise, "Identify and preserve wildlife species migration and travel corridors" is too vague and could pertain to any number of wildlife species that | MA# 4424 Alt D specifically addresses fluid mineral restrictions, therefore only fluid minerals would be restricted. The difference in language is intentional as proposed for the range of alternatives in this action. |

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| | | migrate and travel in corridors, further limiting where surface disturbing activities can occur. If the intent of this MA is towards big game, it should be clarified, and seasonal construction buffers should reflect those identified by the lead agency (WGFD); however, blanket restrictions on surface occupancy for all activities is unreasonable and rather should be evaluated on a case-by-case basis. For these reasons, PacifiCorp recommends that the BLM adopt Alternative A or C for MA #4424. | |
| 810 - Mineral Resources–Saleable Minerals (2500-2507) | #13899-79 | Similarly, we support Alternative B's proposed salable mineral closures to reduce conflicts and prioritize resource protections. | Management actions for all four alternatives for salable minerals are identified in the DEIS in management actions 2500-2507 |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #257-2 | Another benefit of BLM grazing is that grazing substantially alters the fuel characteristics in rangelands. It reduces fuel continuity, height, and amount of forage. Grazing also increases fuel moisture by decreasing dead plant materials, and particularly prior years' growth of annual and perennial grasses. While there is no way to put a dollar amount on the cost of wildfires prevented on BLM allotments due to livestock grazing permits, there is no question that grazing has prevented a great deal fires and the costs associated with fighting them. | The impacts of grazing activities on vegetation communities are provided in Section 4.6 of the EIS. Section 4.10 of the EIS describes how grazing activities can reduce fuel loads and reduce the occurrence of wildfire. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #9793-5 | Under BLM's preferred alternative, more acres of wildfires would be allowed to burn, the use of prescribed fires would be restricted, and a variety of limits would be imposed on fire suppression activities - again without citing any scientific reason for its preference. | A full range of wildland fire management alternatives can be found in Table 2-1 in management actions 3000-3013. The impacts of grazing activities on vegetation communities are provided in Section 4.6 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #9853-6 | While SVP supports any necessary fire management plans (Pages 2-47 through 2-50), it should be noted that fire has the capacity to damage or destroy paleontological resources and sites. Therefore, if any prescribed fire (controlled burns) of lands need to be conducted, such lands should be expeditiously, but properly and adequately, surveyed for paleontological resources (and mitigated or excavated if necessary) by qualified paleontologists, including BLM paleontologists, prior to the burn. Forest and Woodlands (Pages 2-50 through 2-55) | This comment discusses actions that would be implementation level actions or decisions. Implementation level actions are beyond the scope of this planning level document. See Section 1.4 of the EIS for more information about the scope of this document. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #9853-7 | Paleontological resources are not common in vegetated areas, but they nevertheless do occasionally such as in grasslands. Therefore, although SVP does not have any specific preferences in regard to different proposed alternatives (Pages 2-50 through 2-55), such areas should be properly surveyed for paleontological resources by qualified paleontologists, including BLM paleontologists. If any prescribed fire of such lands is needed (e.g., Alternative A of MA#s 4103-4109), such lands should be expeditiously, but properly and adequately, surveyed for paleontological resources (and mitigated or excavated if necessary) by qualified paleontologists prior to the burn. | This comment discusses actions that would be implementation level actions or decisions. Implementation level actions are beyond the scope of this planning level document. See Section 1.4 of the EIS for more information about the scope of this document. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13210-52 | 3006 Alternative A Fire suppression actions would be based on achieving the most efficient control and allowing historical acres burned to increase. Activity plans would be developed for designated fire management areas defining specific parameters for all fire occurrence. Alternative A is preferred, as this maintains the status quo which the group found to be a good strategy for ongoing fire suppression throughout the field office. | An adequate range of alternatives was considered for Management Action 3006. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13210-53 | 3007 Alternative C Prohibit use of heavy equipment within 100 feet of special management areas, except to protect life or property. Alternative C is preferred because Alternatives B and D were determined to be too restrictive as to when, where, and how a fire can be stopped. | An adequate range of alternatives was considered for Management Action 3007. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and | #13210-54 | 3009 Alternative A Wildfires occurring in forested areas would be appropriately suppressed in accord with resource values threatened, as determined on a case-by-case basis. Alternative A is preferred because there are very few forested areas in the RSFO, and thus little need for a change from the status quo as represented under Alternative A. | An adequate range of alternatives was considered for Management Action 3009. |

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| Management (3000-3013) | | | |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13210-55 | 3012 Alternative D Take suppression action to protect the basin big sagebrush/lemon scurfpea plant communities. Manage wildfires and prescribed fires in all vegetation types to maintain or improve biological diversity and the overall health of the public lands. Plant species and age class diversity will be a priority; thus, response for all wildfires will be identified and implemented depending on the resources and management objectives for the area. Identify suppression techniques and hazardous fuels reduction activities to reduce wildfire severity and occurrence on portions of the landscape where fire could cause undesirable changes in plant community composition and structure. Prepare a site- specific analysis for sensitive resource areas, such as Special Status plant species sites, cultural resources, historic trails, and ACECs, to determine the type of fire suppression activity that will be acceptable. Limit fire equipment and fire suppression techniques, such as vegetation clearing, to designated roads and trails in Special Status plant species habitat. Update the Fire Management Plan, as appropriate, to reflect the appropriate suppression activity in sensitive resource areas. Alternative D is the preference because it allows for mitigation of damage to power lines in the event of lightning strikes. | An adequate range of alternatives was considered for Management Action 3012. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13330-2 | * MA # 3008: Sweetwater County Farm Bureau prefers Alternative D. The prohibition of chemical fire suppression agents within ¼ mile of surface water (page 2-48-49) puts many agricultural producers who live in rural areas into additional dangers from wildfires. Many ranches are built near identified resources and surface water sources, dropping chemical fire suppression agents onto ranch houses and outbuildings has saved many of them in the past from wildfires. | An adequate range of alternatives was considered for Management Action 3008. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13330-3 | * MA # 4111: Sweetwater County Farm Bureau prefers Alternative A. The least adequate is Alternative B, as a 5 years rest from grazing (page 2-57) of burned areas is excessive and impractical. Unless the burned areas are thoroughly fenced off from big game and wild horses then it seems that the goal is to restrict grazing rather than to give the burned areas rest. | An adequate range of alternatives was considered for Management Action 4111. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13353-4 | The BLM preferred Alternative B emphasizes the use of natural processes for forestry management and specifically prohibits fuel reduction operations on slopes steeper than 25%. Page 4-126 of the Draft RMP/DEIS states, "Limiting logging operations on slopes steeper than 25% (compared to 45%, under Alternative A) would reduce lands where commercial harvests could be conducted, thereby increasing fuel loading that support high-intensity fires." However, the Draft RMP/DEIS does not adequately account for the impacts to soils from the high intensity fires that will result from prohibiting heavy equipment and increasing fuel loading on slopes greater than 25%. Fires that consume large quantities of surface organic matter reduce the moisture- holding capacity and productivity of the soils. Post-fire surface runoff causes increased water and wind erosion as a result of these physical soil changes. Factors controlling post-wildfire erosion differ from site to site. Therefore, a one-size-fits-all management action to prohibit heavy equipment and fuels reduction on slopes steeper than 25% will exacerbate the hazardous fuels growth, increase fire intensity on the slopes, and the result in additional post-wildfire erosion to the soil. | The BLM has reviewed the analysis in Section 4.4.3 of the EIS and determined it is adequate. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13353-5 | Section 4.10.2 Wildfire Ecology and Management, Alternative A (page 4-121) attributes several mineral exploration and development impacts and claims human presence introduces additional ignition sources, increases the probability of wildfire occurrence, and increases the need for fire suppression activities.However, the 2023 Draft RMP/DEIS provides no data to support these claims. By contrast, incident response data and local fire experience in Sublette County indicates the fires related to mineral exploration and development activities occur within established development boundaries, are contained within the rock/soil boundaries of the development, and pose little to no risk to surrounding vegetation.Please provide supporting data from within the planning area to substantiate the existing wildfire ecology problem that resulted from mineral exploration and development described in Section4.10.2 Wildfire Ecology and Management Alternative A (page 4-121). | The BLM has reviewed the analysis in Section 4.10.2 of the EIS and determined it is adequate. Note that Alternative A is the existing management under the 1997 RMP. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13353-9 | The BLM preferred Alternative B fails to adequately consider the impact abandoning Special Recreation Management Areas as it relates to fuel treatments and wildfire suppression near SRMAs. Closing or limiting areas to recreational roads, trails, and routes use would decrease accessibility during emergency response, and prevent these features from being used as fire breaks to inhibit or stop the progress of wildfires in the planning area. Efforts to restrict firefighting equipment will delay emergency response, impede fire suppression efforts, and threaten life safety, property conservation, and resource values. | See Section 3.17.1 for a description of Special Recreation Management Areas. The BLM has reviewed the analysis in Section 4.10.3 of the EIS and determined it is adequate. |
| 811 - Fire and Fuels Management– | #13353-10 | The 2023 Draft RMP/DEIS incorrectly attributes management actions required in Alternative A. The Implementation Guide for Aerial Application of Fire Retardant (USDA Forest Service 2013), uniformly recommends the avoidance of retardants or foams within 300 horizontal feet from the edge of any waterway, waterbody, or | Alternative A is the existing management under the 1997 RMP. The BLM has reviewed the analysis in Section 4.5.3 of the EIS and determined it is adequate. |

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| Wildland Fire Ecology and Management (3000-3013) | | wetland. Furthermore, under Alternative A, firefighter and public safety is always the first priority of incident response. | |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13353-13 | Please remove all references to wildfire being used for resource benefit and as a natural management tool under Alternative B in the Draft RMP/DEIS. The flawed assumptions will lead to improper analysis of the alternatives and lead to a bad decision. | The BLM has reviewed the EIS and the use of language that refers to utilizing wildfire as a resource benefit or natural management tool and determined that this language is appropriate as used. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13515-1 | RMEF is very supportive of active management on our public lands to benefit wildlife habitat and fire risk management. Executing active forest management techniques such as prescribed burns, thinning, and other treatments helps prevent catastrophic wildfires and assists in long-term ecosystem resilience. In addition, managing natural ignitions can help achieve fuel and vegetation goals. RMEF expresses concern about vegetation and timber management restrictions that would be in place following implementation of several Areas of Critical Environmental Concern (ACEC). The draft Plan components lack clarity as to desired conditions for timber production or vegetation management that would support vegetation diversity and heterogeneous vertical structure. As-is, priority would be given to activities that protect, rather than conserve and manage vegetative conditions. | Developing specific desired conditions for timber production or vegetation management are implementation level decisions that are beyond the scope of this planning level document. See Section 1.4 of the EIS for more information about the scope of this document. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13564-3 | Wildfires have begun to spread across the world at an unprecedented rate and it is up to land managers to do their part to manage this. The continued grazing of land by all is one tool available for the prevention of wildfires. While the Red Desert is not known for large fires, it is still important to make sure the landscape is healthy and properly managed to prevent the spread of fire. Each year, the BLM reports "34-50 "unplanned ignitions" in the DRMP area that burns an average of 2,000 acres. It is also important to note that Map 3-6 in the RMP also shows that there were no prescribed burns in the area from 1997 - 2015. Fires can be a useful management tool if used correctly. A 2020 comparison of prescribed fires in Australia found that early dry season prescribed burns could be beneficial to both the vegetation and mammalian life. | Section 4.10 of the EIS contains language that explains the connection between livestock grazing and the removal of hazardous fuels. Management Action 4103 allows for the use of prescribed fire under all Alternatives. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13669-3 | Adopting Alternative B may increase forages available to the point that fire risk would be dramatically increased. In this fire sensitive culture in which we live, responsible livestock grazing to protect the environment is a mutually beneficial way to mitigate fire risk. In addition, if Alternative B is selected, control of any wildfire will be hampered due to restrictions in mobilizing fire suppression equipment to the scene. | Section 4.10 of the EIS describes how livestock grazing can reduce hazardous fuel loads. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13688-1 | The BLM Preferred Alternative B limits emergency response (MA#1501, MA#7225, MA#7229, MA#7320, MA#7426), unnecessarily dictates firefighting strategies/tactics (MA#7437, MA#7475), restricts heavy equipment use (MA#3007), restricts aerial retardant application (MA#3008), seasonally closes areas during wildfire season (MA#4427, MA#7466), increases exclusion distances for fire suppression activities (MA#4431), and prohibits all prescribed fire use (see glossary definition 'surface disturbing activities' page GL-30). These examples of management actions under Alternative B represent unsafe restrictions on wildfire suppression activities that could negatively affect life safety and property conservation. The Draft RMP/DEIS fails to provide scientific analysis to support these recommendations. | Impacts to Wildfire Management from the Management Actions in Alternative B are provided in Section 4.10 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13688-2 | Management under Alternative A balances the protection of life safety, property conservation, values at risk, and multiple-use objectives. On-scene incident commanders have sufficient decision- making authority to manage fire response activities to achieve resource objectives. Fire ecology management actions under Alternative A include: prescribed fire, fuel management, mechanical treatment, chemical treatment, grazing, fire use, and fire suppression. The remaining alternatives considered within the Draft RMP/DEIS do not improve fire management practices currently employed under Alternative A. | Impacts to Wildfire Management from the Management Actions related to Alternatives B, C and D are provided in Section 4.10 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13691-3 | Adopting Alternative B may increase forages available to the point that fire risk would be dramatically increased. In this fire sensitive culture in which we live, responsible livestock grazing to protect the environment is a mutually beneficial way to mitigate fire risk. In addition, if Alternative B is selected, control of any wildfire will be hampered due to restrictions in mobilizing fire suppression equipment to the scene. | Section 4.10 of the EIS contains language that explains the connection between livestock grazing and the removal of hazardous fuels. Impacts to Wildfire Management from the Management Actions in Alternative B are provided in Section 4.10 of the EIS. |

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| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13751-51 | BLM's plan, especially Alternative B, may actually result in large impacts that were unintended. For example, designating road access will result in limited ability for firefighters to get to remote areas and will result in larger fires and extreme impacts to all resources. Specific examples of how the plan results in unintended consequences are as follows: Eliminating access on these roads will result in more BLM resource and project proponent needs for permitting new roads. Eliminating access for firefighting purposes could be catastrophic for vegetation and soils across the range assuming BLM will be forced to use a policy of "let it burn" due to lack of access for firefighting. The BLM should not change "limited to existing roads and trails" to "limited to designated roads and trails" because it will have an unintended and negative consequence.[...]Appendix H, page 28 clearly shows the intent "restricting heavy firefighting equipment to designated road and trails." By eliminating existing roads and trails, under any alternative, this will eliminate access to large areas. Per BLM (see Management Action 7426), this also eliminates access on some of the existing roads and trails for exploration and even firefighting activities. | Impacts to Wildfire Management from the Management Actions in Alternative B are provided in Section 4.10 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13759-1 | Climate change is minimally addressed in the Rock Springs RMP. The majority of where climate change is mentioned in the document is in the Monetized Impacts of Greenhouse gases (GHG's) section. This seems to be where a detailed conversation of climate change begins and ends in the RMP. Addressing GHG's is important, but there are many other issues that should be considered in this management plan in the context of climate change, such as early snowmelt, drought, loss of habitat, wildfires, and water resources (EPA, 2016). I think that this RMP should describe more ways the RSFO can be proactive around these issues and explain how plans will be adaptive in the face of inevitable change. | The BLM has reviewed the analysis in Section 4.10 of the EIS and determined it is adequate. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13784-10 | Fire and Fuels Management-Wildland Fire Ecology: MA#3008, Alt B: "Prohibit use of chemical fire suppression agents within 1/4 mile of Special Designations and rock art sites and where it may adversely affect identified resources (e.g. cultural, water, soil, wildlife)." (p. 2.48) Comment: Special Designation areas increase by 460% under Alternative B, leaving a significant portion of the Rock Springs BLM vulnerable to catastrophic wildfires when a tool such as chemical fire suppression is removed under Alternative B. | Impacts to Wildfire Management from the Management Actions in Alternative B are provided in Section 4.10 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13865-32 | 6. Wildland Fire Ecology and Management PacifiCorp is implementing wildfire system hardening activities throughout its service territory. These actions include, but are not limited to, increased line patrols, conversion from bare conductor to covered conductor on distribution lines, changing out equipment (e.g., non-expulsion arresters and fusing), conversion from overhead to underground distribution lines, pole replacements, fire wrapping of poles, installation of avian and animal guards, installation of pole-mounted weather monitoring stations, and increased scope and frequency of vegetation management with ROWs. In addition to addressing fire risks associated with its facilities and surrounding vegetation, utility ROWs provide a supplemental benefit acting as potential fuel breaks and/or providing access routes for emergency responders during fires. Historically the area within the RSFO has been unimpacted by significant wildfires; however, trends across the West point towards an increase in overall fire risk. Over the past 20 years, the number and scope of fires has increased. The DEIS states that there have only been three significant fires since 1984, yet all three of those occurred after 2000. PacifiCorp is focused on reducing this increasing risk via line and vegetation inspections, system automation (which more quickly de-energizes lines in the event of a fault), installing different pieces of equipment, and other system hardening efforts. These efforts require access to existing infrastructure, as well as system upgrades where appropriate. While the BLM should consider past fires to inform risk, it should also consider the trending increase and ensure PacifiCorp and other utilities can act as partners to reduce wildfire risks. The DEIS acknowledges the importance of human health and safety (see MA #12, which states, "Human health and safety needs supersede all actions in this plan"); however, numerous MAs throughout the draft plan would hinder actions to maintain human health and safety by hindering wildfire prevention. PacifiCorp is concerned that the draft RMP, and specifically preferred Alternative B, does not address the importance of utility system hardening work as critical for human health and safety, and the need for this work to be conducted without administrative delays. System hardening may be considered emergency or O&M work, depending on the circumstances. These activities require utility access to ensure the safe operation of the electric grid. PacifiCorp will require travel through BLM-managed lands to access utility infrastructure for wildfire maintenance activities, and the extensive restrictions included in Alternative B could prohibit of delay this access, potentially putting infrastructure and landscapes at risk. While wildfire is specifically addressed in the DEIS in Chapter 4.10, restrictions elsewhere in the draft plan specifically related to ACECs, seasonal wildlife closures, and ROW restrictions, can impact utility travel and access to ROWs, potentially delaying or prohibiting necessary and time sensitive system hardening work. Specifically, MA #3007 restricts the use of heavy equipment for fire and fuels management that could cause surface disturbance. Electric utilities perform wildfire prevention activities, including vegetation management and infrastructure system hardening, that may use trucks, machinery, or other heavy equipment. Consequently, PacifiCorp recommends that the BLM adopt Alterative C under MA #3007, as this management action protects sensitive areas while still allowing for wildfire prevention activities. Restrictions in the DEIS related to herbicide use may also impact PacifiCorp's ability to implement its wildfire prevention activities. As proposed in Alternative B, prohibiting vehicle and hand application of chemicals within ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status plants would severely | None of the management actions under any alternatives would prohibit the treatment of vegetation around structures and equipment as required by law or policy. Section 1.4 of the EIS states "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." |

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| | | limit PacifiCorp's ability to perform integrated vegetation management in its ROWs by placing large restrictions on the areas in which herbicide treatments can be used. Prohibiting herbicide use will result in increased fuel loads on the landscape, a concern for wildfire risk. PacifiCorp's integrated vegetation management plan is consistent with Alternative A's focus on management actions utilizing mechanical and chemical treatments of vegetation in fire ecology management, as described in Chapter 4.10.2 of the DEIS. In summary, PacifiCorp recommends that the BLM adopt the following management actions related to wildfire: ? Allow utility system hardening and related wildfire risk reduction work to proceed without additional restrictions, review, or prior authorization. This is consistent with BLM IM 2023-034 that states: o "To facilitate and expedite O&M activities necessary to reduce the risk of wildfire, the BLM affirms that ROW holders are authorized and responsible to carry out O&M work including inspections to prevent wildfire. The BLM will encourage ROW holders to provide the Authorized Officer prior oral or written notification of O&M activities. The BLM Field Office will request that ROW holders notify the appropriate BLM Field Office within 30 days of completing such work unless this timeframe conflicts with applicable law and regulation. If the ROW holder determines that O&M work is necessary to prevent and suppress wildfire, then Field Offices should not generally require the ROW holder to obtain any additional notice to proceed or other form of prior approval before conducting the O&M work." ? As detailed above, PacifiCorp recommends that the BLM adopt Alterative A in regard to Wildland Fire Ecology and Management (Chapter 4.10.2). ? As detailed above, PacifiCorp recommend that the BLM adopt Alterative C under MA #3007. | |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13865-52 | Sterilization of vegetation is required around certain structures such as fuel tanks, propane tanks, and electrical substations and switches to prevent fires. If BCC is not allowed to used chemicals to help prevent the growth of vegetation in these areas unsafe conditions could arise. | None of the management actions under any alternatives would prohibit the treatment of vegetation around structures and equipment as required by law or policy. Section 1.4 of the EIS states "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #13892-18 | BLM currently calls for wildland and prescribed fires to "be managed in all vegetation types to maintain or improve biological diversity and the overall health of the public lands," but that would switch to "allowing wildfire to function as a natural ecological role." Under BLM's preferred alternative, more acres of wildfires would be allowed to burn, the use of prescribed fires would be restricted, and a variety of limits would be imposed on fire suppression activities- again without citing any scientific reason for its preference. | Impacts to Wildfire Management from the Management Actions in Alternative B are provided in Section 4.10 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #14026-6 | Adding unnecessary complexity, cost, and mandates on electricity infrastructure may chill investment in grid hardening and expansion, at a time of high wildfire risk and increased electrification of the nation. NRECA urges BLM to refrain from imposing any such requirements on electrical infrastructure in the final RMP/EIS. | Impacts to Wildfire Management from the Management Actions in Alternative B are provided in Section 4.10 of the EIS. |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #14026-7 | NRECA also is deeply concerned about the possible restrictions imposed by the preferred alternative upon access to electricity ROW infrastructure for operations and maintenance activities. As BLM is aware, routine inspections, repairs, and vegetation management of the electrical system is critical for public safety, wildfire mitigation, and continued electric reliability. Utilities already face challenges and prolonged BLM approval processes to conduct these routine activities. Should this RMP/EIS limit access to electricity infrastructure and further complicate vegetation and grid hardening processes, risk of wildfire, outages, and other adverse events could increase. NRECA urges BLM to retract any potential limitations on ROW access and instead use this RMP process as an opportunity to improve utility access to their ROWs and to expedite and ease vegetation management and grid hardening processes on BLM-managed lands. NRECA encourages BLM to work with the electricity sector to understand vegetation management processes and access needs in the region and to incorporate those insights into the Final RMP/EIS. | None of the management actions under any alternatives would prohibit the treatment of vegetation around structures and equipment as required by law or policy. Section 1.4 of the EIS states "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." |
| 811 - Fire and Fuels Management–Wildland Fire Ecology and Management (3000-3013) | #14032-14 | The EPA recommends that the BLM include more detailed discussion in the Final RMP/EIS that considers how projected increases in drought conditions may worsen wildfires in vegetation communities in the planning area. Increased dryness and drought could result in massive plant die-off, creating ample fuel and better spreading conditions for massive wildfires. As part of this discussion, we recommend that BLM identify potential impacts from increased severity of wildfire under climate change conditions to water quality by increasing sedimentation or presence of pollutants in water resources located in the planning area. We further encourage the BLM to evaluate ways to mitigate or reduce the likelihood of climate-related wildfires and other drought-related impacts. Designing land use activities to maintain or increase the ability of the land to capture, retain and release water will increase the resiliency of the RSFO against drought and wildfires into the future. For instance, we recommend the Final RMP/EIS evaluate actions such as, but not limited to, the following: * Reevaluation of livestock grazing practices | The BLM has reviewed the analysis in Section 4.10 of the EIS and determined it is adequate. |

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| | | could result in less-impacted soils which may absorb and retain more water. Reducing livestock disturbance through grazing land rotation strategies can reduce land overuse and reduce introduction of noxious plant species that can promote wildfires. * Instream water management activities, such as beaver reintroduction or beaver dam analog construction can restore natural flows and increase water retention. * Filing for water rights, including instream flow under applicable state or federal permitting, to ensure water availability for multiple use management and healthy functioning riparian and upland ecosystems. | |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #9793-6 | Commercial timber harvest would be prohibited. What is the science that has led BLM to develop these components as its preference? | A range of alternatives for designation of Wild and Scenic Rivers and commercial timber harvest are analyzed in actions 7226, 7230 and 7234. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #9794-2 | RNAs Page 4-179, Alternative B refers to "designation of new … research natural areas" (RNAs). But there are no RNAs included in the document. Explain this inconsistency. | See updated text in 4.16.3 |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #13210-56 | 4003 Alternative A with amended/ additional text Noncommercial forest lands (woodlands) would be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses. The task force's preference is to combine language from Alternatives A and D to reflect that forested lands in the field office be managed to provide cover, enhance habitat for wildlife, etc... and provide forest and woodland products to the public. Requested additional language included in red: Noncommercial forest lands (woodlands) would be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses, while providing forest and woodland products to the public. | Management Action #4003 for alternative A is the No action/existing management action under the Green River RMP. See page ES-3 for a description of Alternative A. A range of alternatives for managing forest woodlands are analyzed in Chapter 2.2.6. management action 4003. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #13210-57 | 4013 Alternative A* Noncommercial forest lands (woodlands) would be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses. In the management action prioritization exercise, all voting members submitted the same preferred alternative. These recommendations were not discussed during the meetings, but task force members approved their inclusion in the final report. | A range of alternatives are analyzed for restriction of timber harvest in Chapter 2.2.6 management action 4013. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #13784-11 | MA#4003, Alt B: "Manage forests and woodlands to improve vegetative health and for the benefit of other resources. Use natural processes to the greatest extent possible." (p. 2-51) Comment: Alternative B excludes what natural processes are approved and eludes to relying primarily on natural fire regimes and perhaps insects to manage the forest and woodlands, which WDA believes does not improve vegetative health or benefit other resources such as wildlife. | A range of alternatives are analyzed for management of woodland forests in Chapter 2.2.6 management action 4020. Analysis of impacts for actions in the alternative is found in chapter 4. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #13784-12 | * MA#4016, Alt B: "Leave harvested areas and areas denuded by natural causes to revegetate naturally." (p. 2- Comment: Areas burned by wildfire are prone to heavy cheatgrass infestations. By choosing Alternative B, BLM lands will no longer meet the habitat needs of many wildlife species and likely conflict with designated wildlife habitats such as crucial winter range, parturition areas, nesting for sage-grouse, etc. | A range of alternatives for harvested areas are analyzed in Chapter 2.2.6 management action 4016. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #13784-13 | MA#4020, Alt B: "Prohibit pre-commercial thinning except for fuels treatment." (p. 2-54) Comment: Alternative B is a direct conflict by prohibiting pre-commercial thinning as a tool scientifically proven and utilized across the West to improve the resource for not only commercial purposes, but also for other beneficiaries such as wildlife. | A range of alternatives are analyzed for management of woodland forests in Chapter 2.2.6 management action 4020. Analysis of impacts for actions in the alternative is found in chapter 4. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #13892-19 | The proposal does "allow the sale of small vegetative permits to meet public demand for posts and poles, firewood, sawlogs, Christmas trees, burlwood, and other vegetative products and to meet forest health objectives and wildlife habitat requirements," but prohibits clear-cuts and harvest methods that create clear-cuts, as well as prohibits pre-commercial thinning except for fuels treatment. Commercial timber harvest would be prohibited. What is the science that has led BLM to develop these components as its preference? | A range of alternatives are analyzed for the sale of permits in Chapter 2.2.6 management action 4010. Analysis of impacts for actions in each alternative are found in Chapter 4. See Chapter 4.18.1 for assumptions used for analysis. |
| 812 - Biological Resources- | #14022-4 | In the Biological Resources section MA#4011 under Alternative B prohibits clear-cuts and harvest methods that create them. SCCD discourages this as sometimes the species requires a clear cut to revegetate after a harvest. Lodgepole Pine is the perfect example within the RMP planning area. Also, when there is a disease or insect | A range of alternatives are analyzed for clear-cuts in Chapter 2.2.6 management action 4011. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Forest and Woodlands (4000-4024) | | outbreak the best way to deal with the outbreak maybe clear cutting and removing that tool from the toolbox ties the hands of the people trying to manage the landscape. | |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #14022-5 | MA#4016 under Alternative B is very restrictive and could lead to large landscapes crossing a threshold that might be irreversible. Land managers and conservationists throughout history have had to intervene with restoration efforts when mother nature has a hard time doing it on her own. SCCD believes that the BLM may be setting themselves up for failure with this prescription, when the better approach is to monitor the revegetation and determine intervention on a case-by-case basis. | A range of alternatives for harvested areas are analyzed in Chapter 2.2.6 management action 4016. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #14022-6 | MA#4017 Alternative B states that natural processes will be used to manage forest health. SCCD would like to point out that human interaction with the natural fire regime and further lack of management has led to decadent, disease prone forest stands within the RSFO. Alternative B appears to all forested stands like they are in a National Park and not managed under FLPMA. SCCD strongly encourages the BLM to manage for a healthy ecosystem and utilize all tools in resource management that help you achieve this goal, as suggested in Alternative D. | A range of alternatives for revitalizing decadent stands are analyzed in Chapter 2.2.6 management action 4017. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 812 - Biological Resources-Forest and Woodlands (4000-4024) | #14022-7 | MA#4020, SCCD would like the prohibition of pre-commercial thinning to be removed as it is a tool that is needed at times depending on the project location. | A range of alternatives for managing woodland forests are analyzed in Chapter 2.2.6 management action 40120. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #4026-6 | Chapter 3.5 Vegetative Communities. As relating to the Killpecker Sand Dunes complex, I believe a "Sand Dunes" vegetation deserves discussion as a separate vegetation community found in the district. These dunes could potentially harbor a number of rare plants, such as the blowout penstemon (Penstemon haydenii). Information for additional discussion on a "Sand Dunes" vegetation can be gotten from Jones (2002). | Chapter 3.5 contains an adequate description of the vegetation communities within the planning area. For impacts from each of the proposed alternatives, see Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #9721-2 | Numerous articles specific to Wyoming have been written detailing habitat restoration studies conducted by the University of Wyoming, yet have not been utilized by this project. Some researchers from UW that have completed work within or near the area include P. Stahl, M. Curran, J. Norton and C. Strong. Their research and peer reviewed publications are unbiased and specific to the landscapes analyzed in the BLM proposed RMP. The BLM claims to use the best available science yet does not include the latest site specific research and data related to the habitat under consideration. | See Executive Summary and Chapter 4.2.2 Availability of Data and Incomplete Information for adequacy of data and analysis. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #9721-6 | What is the threshold for determining whether an area is difficult to reclaim? Does that include areas that have a high likelihood of reclamation success, but contain a component that may result in specific lands to be classified as difficult? The BLM needs to state specifically what attributes, combination of attributes or lands may contain habitats that are difficult to reclaim, as well as the overall likelihood of success in reclaiming those lands. Furthermore, those areas should not be delineated with a broad pen but ground truthed with site specific data. | See Glossary for a definition of 'reclamation' and 'limited reclamation potential'. A range of alternatives has been analyzed for soil resources in Chapter 2.2.6 management actions 100-1116. See appendix I for the Reclamation Plan. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #9721-7 | The statement requiring photo point monitoring for all channel crossings and all surface disturbances greater than½ acre limits the use of best available technology or most appropriate monitoring methods to track and monitor rangelands. Monitoring programs are to be developed to accurately capture and record trends in relation to desired goals and objectives. Photo point monitoring is a good and appropriate method for monitoring some attributes of rangelands but, should not be considered the only method due to development of future monitoring protocols or management objectives. You should restate this requirement to state the BLM encourages the utilization of photo point monitoring, but other methods may be considered. | A range of alternatives has been analyzed for photo-point monitoring in Chapter 2.2.6 management action 1109. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and | #9721-10 | Native plant species are preferential, however non-native species are important for competing against invasive and undesirable species. In addition to competition with invasive species non-native species attract pollinators, capture moisture helping to establish native species, minimize erosion, act as nurse crops and often fill a niche that is left devoid due to lack of commercial availability of native species. Options utilizing non-native species in revegetation must be kept open. | Please refer to Chapter 3.6. A range of alternatives has been analyzed for desired plant community objectives in Chapter 2.2.6 management action 4102. Analysis of the impacts from the actions in each alternative is found in Chapter 4 |

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| Shrubland Communities (4100-4112) | | | |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #9853-7 | Paleontological resources are not common in vegetated areas, but they nevertheless do occasionally such as in grasslands. Therefore, although SVP does not have any specific preferences in regard to different proposed alternatives (Pages 2-50 through 2-55), such areas should be properly surveyed for paleontological resources by qualified paleontologists, including BLM paleontologists. If any prescribed fire of such lands is needed (e.g., Alternative A of MA#s 4103-4109), such lands should be expeditiously, but properly and adequately, surveyed for paleontological resources (and mitigated or excavated if necessary) by qualified paleontologists prior to the burn. | A range of alternatives has been analyzed for vegetation-grassland and shrubland communities in Chapter 2.2.6 management action 4100-4112. A range of alternatives has been analyzed for protection of paleontological resources in actions 5300-5309. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13210-58 | 4102 Alternative A Native plant communities are the preferred species identified when establishing desired plant community objectives (see Riparian Vegetation Guidelines for additional guidance). The task force preferred a maintenance of the status quo under Alternative A. Alterative C was not preferred because it allows for the acceptance of native and approved non-native plants species - which the BLM indicated they typically don't allow. | A range of alternatives has been analyzed for desired plant community objectives in Chapter 2.2.6 management action 4102. Analysis of the impacts from the actions in each alternative is found in Chapter 4 |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13210-59 | 4103 Alternative D Alternative D: Same as Alternative C. Alternative C: Use naturally occurring wildfires, prescribed fire, chemical treatments, biological treatments, mechanical methods, and livestock grazing to meet vegetation management objectives. Alternative D supports agreements in principle # 4 and # 5, by allowing for flexible means to achieve vegetation management objectives. Specifically, Alternative D recognizes livestock grazing as well as prescribed fire, chemical, biological and mechanical treatments to meet vegetative management objectives. | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4 |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13210-60 | 4110 Alternative A Vegetation manipulation projects would be conducted to reach multiple use objectives and would involve site-specific environmental analysis and coordination. Funds for vegetation manipulation in I category allotments would be provided by the BLM, other state or federal agencies, and private sources. Alternative A is preferred as it identifies the use of vegetation manipulations projects to achieve multiple- use objectives whereas Alternative C suggest vegetation management projects would only be used to achieve ecosystem health objectives. | A range of alternatives has been analyzed for vegetation treatments in Chapter 2.2.6 management action 4110. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13210-61 | 4111 Alternative D Adapt management of treated areas, using a site-specific analysis of contributing factors, if not meeting or making significant progress toward vegetation objectives. This management action supports agreements in principle # 4 and # 5 by providing for critical site- specific determination regarding rest of treated areas. Alternative D is preferred because it allows for flexible management. Alternative B requires the resting of a treated area for five growing seasons which the task force felt lacked scientific support and would be detrimental to livestock operators. Alternative A did not provide clear language as to who would be responsible for the fencing out of livestock and big game animals if necessary. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13210-62 | 4112 Alternative D Design vegetation treatment projects to maintain or improve water quality and reduce erosion by dissipating erosive energies. Alterative D is preferred because it allows for water maintenance and improvement. | A range of alternatives has been analyzed for vegetation treatments and water quality in Chapter 2.2.6 management action 4112. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland | #13247-2 | a. Credible Data: Scattered throughout the EIS is the policy that the BLM will be establishing plans and management policies based on monitoring data and site data as it becomes available. BLM did not appropriately cooperate with Fremont County in acknowledging the Fremont County NRMP. See BLM # 4101 While monitoring and site data can be important tools, this data needs to qualify as credible data in order to be consistent with the Fremont County NRMP: | See Chapter 1.5 Relationship to Other Plans |

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| Communities (4100-4112) | | | |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13704-1 | I urge the BLM to consider the rarity of Limber Pine stands, especially those on the windward slopes of interior meadows. (i.e. location: 41.051341N, 108.976374W) 5. I urge the BLM to consider the occurrence of Draba Juniperina as a listed species of concern on the Wyoming Natural Diversity Database. Years ago, a researcher happened by our cabin and informed me that this very rare species was present on Pine Mountain. | A range of alternatives for Special Status plant species was analyzed in Chapter 2.2.6 management actions 4600-4624 and 6400-6417. See Chapter 3.8.2 for a list of Sensitive species. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13748-9 | MA# 4103, Alternative C: Use naturally occurring wildfires, prescribed fire, chemical treatments, biological treatments, mechanical methods, and livestock grazing to meet vegetation management objectives. Rationale: Alternative C recognizes livestock grazing as well as prescribed fire, chemical, biological, and mechanical treatments to meet vegetative management objectives while Alternative B does not recognize chemical, livestock grazing, and mechanical methods to meet vegetation requirements. Different vegetation types and ecosystems respond differently to various management methods. Employing a range of techniques allows land managers to address the specific needs of diverse plant communities, promoting a more balanced and resilient ecosystem. We would like land managers to be able to use a variety of tools to meet vegetation standards | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13754-20 | One requirement the BLM proposes is that the average frequency of shrubs within a project area must accomplish 50 percent coverage as gauged against a reference site. It can take well over 20 years for shrubs to dominate a site at that level. The BLM's focus on shrub coverage ignores the science associated with ecological succession. Therefore, it may be dismissive of a more reasonable and productive outcome which would be to target healthy, vigorous and diverse plant communities which provide benefits to invertebrates and support trophic food webs. Allowing discretion at the planning stages will increase the probability of achieving the best outcome. | See Appendix I: Reclamation Plan for general reclamation requirements. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13754-21 | Another standard the BLM is proposing is that the average percentage composition and total diversity of forbs must be equal to or greater than pre-disturbance composition. Yet multiple agencies with expertise, including the NRCS, Sublette County Conservation District, the Wyoming Department of Agriculture WGFD and the Bureau itself have determined that the requirement for forbs be equal or greater than pre-disturbance composition is a poor measurement or criteria. This is an arbitrary goal set by the BLM that again will not result in the best outcome for reclaiming a disturbed site. | See Appendix I: Reclamation Plan for general reclamation requirements. See Chapter 1.4 Planning Criteria for coordination with other agencies. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13769-4 | 3. We urge the BLM to consider the synergistic effects of increasing feral horse populations and decreasing forage production in the area due to climate change. We have observed considerable impacts of wild horse forage consumption. The impacts are significant because unlike migrating wildlife or cattle, feral horses graze the same areas year around. Also, horse digestive physiology forces horses to intake more forage and use it more inefficiently than native ungulates. Horses are clearly noteffectively managed and their populations increase each year. Horses also concentrate in certain areas like watering holes and the few riparian areas. We have observed a decrease in both the quantity and diversity of forage in these habitats. For example, the increase in non-palatable species like Prickly Pear Cactus and Rubber Rabbit Brush in areas of heavy grazing is concerning. While the former can be partially attributed to drought and a changing climate, we are concerned that uncontrolled feral horse populations will result in irreversible change in species richness and net primary productivity. We report numerous 'stud pile' areas that are devoid of any vegetation because of repeated occupancy and trampling by numerous stud horses. A decrease in plant cover results in increased soil erosion and a decrease in forage production. While not documented scientifically, we observe in these areas that the trampling is so severe that it appears as if sub-soil salts are leached to the surface and form alkaline deposits that further reduce plant production and lead to the spread of noxious weeks (e.g. Halogeten (Halogeton glomeratus)). | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 actions 4600-4624. See Chapter 3.9 for information about wild horses within the planning area. Analysis of impacts for actions in each alternative is found in chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13784-14 | MA#4103, Alternative B: "Use naturally occurring wildfires, prescribed fire, and biological treatments to meet vegetation management objectives or to protect and enhance crucial and sensitive wildlife habitats." (p. 2-56) Comment: Unlike Alternatives C and D, Alternative B prohibits the use of chemical treatments. BLM has recent approval for the chemical Rejuvra, which is the most effective chemical on the market for the long-term treatment of cheatgrass and other annual grass species. By prohibiting chemicals such as Rejuvra, or other chemicals developed and approved in the future and during the implementation of this RMP, the Rock Springs Field Office will likely experience significant infestations of weeds and annual grasses. Ultimately, livestock grazing permittees will experience negative impacts on their permits as a result of not meeting standards for upland and wildlife. | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |

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| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13784-15 | MA#4111, Alternative B: "Rest all treated areas a minimum of five growing seasons from livestock grazing." Comment: MA#4100 states "Manage vegetation using the best available science-based assessment and modeling information..." However, Alternative B directly conflicts with MA#4100 by requiring a blanket timeframe of 5 years rest for all treatments. Not every treatment would benefit from rest and may in fact benefit from grazing to reduce monocultures of a particular vegetation species. Additionally, BLM interchanges this MA throughout the document and analysis with five growing season, five years, and five seasons. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13784-17 | MA#4111, Alternative D: "Adapt management of treated areas using a site-specific analysis of contributing factors, if not meeting or making significant progress toward vegetation objectives." (p. 2-57) Comment: WDA also does not support Alternative D for a number of reasons. The MA is incorporating and misapplying Wyoming Land Health Standards language for making a determination. Establishing and meeting vegetative objectives following a vegetation treatment does not follow the same analysis, or determination of causal factors. WDA recommends rewording Alternative D as follows: "Develop reasonable vegetation objectives based on treatment methodology and defer livestock grazing as needed to reach objectives. | The language of Alt D in Management Action 4111 is not referring to land health standards, but vegetation objectives. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13784-47 | "Livestock grazing management actions would be similar to Alternative A, except where areas open to grazing under Alternative A would be prohibited or closed to livestock grazing (exclosures and recreation areas). In these areas, reduced grazing pressure on vegetation would provide greater protection to soils compared to Alternative A." (p. 4-24) Comment: BLM needs to include the number of acres prohibited or closed to grazing to inform the public and most importantly the livestock grazing permittees of the actual impact from current management under Alternative A. | Section 4.16 of the EIS describes the number of acres closed to livestock grazing under all management actions for each alternative. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13784-52 | 4.6.2 Vegetative Communities, Alternative B: "The increased restrictions placed on livestock grazing activities under this alternative would likely support vegetation resources to a greater degree when compared to Alternative A. Closing all exclosures within the planning areas to livestock grazing and suspend AUMs currently authorized in these exclosures would allow the forage in the exclosures area a chance to regrow." Comment: BLM needs to identify what restrictions are placed on livestock grazing. If the exclosures are already in place under Alternative A, this excludes grazing, and vegetation isn't being utilized. There is no "regrowth" occurring under Alternative B. The analysis lacks enough information to compare the impacts between alternatives. | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. Livestock grazing management action can be found in actions 6400-6417, with impacts found from each alternative in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13799-1 | We recommend this plan support the national sagebrush initiative and not constrain important conservation opportunities that could be considered in future greater sage grouse specific amendments. The Draft RMP lands comprise some of the largest intact native sagebrush communities in the West, a conservation priority for the Department of Interior. These sagebrush communities are of national significance as an intact ecosystem, as a seed bank, and as an essential core sustaining rangewide ecological integrity in Wyoming and throughout the high deserts of the western United States (USGS Open File Report, 2022). These central habitat strongholds of greater sage grouse safeguard a robust intact genetic and demographic core population that is essential to sustain small, isolated outlying sage grouse populations, such as the population resident to Grand Teton National Park. | See Chapter 1.3 for description of the separate sage-grouse planning effort. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13849-2 | Biological Resource #4111. Page 2-57. Alternative D provides for critical site-specific determination regarding rest of treated areas and is preferred because it allows for flexible management. What is the scientific rationale for 5 years? Who would be responsible for fencing out the wild horses, wildlife, and or big game animals if an area is to be rested for 5 years? To say nothing of the problematic and devastating effects such a lengthy rest would have for me as a livestock operator. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13851-2 | Biological Resource #4111. Page 2-57. Alternative D provides for critical site-specific determination regarding rest of treated areas and is preferred because it allows for flexible management. What is the scientific rationale for 5 years? Who would be responsible for fencing out the wild horses, wildlife, and or big game animals if an area is to be rested for 5 years? To say nothing of the problematic and devastating effects such a lengthy rest would have for me as a livestock operator. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. |
| 813 - Biological | #13851-3 | Biological Resource #4103. Page 2-56. Alternatives C and D recognize livestock grazing as a beneficial tool, in addition to fire and weed & pest measures, to meet vegetation management objectives. Other states have | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |

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| Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | | been imploring the use of livestock grazing as a tool to reduce the amount of fuel to slow the speed of wildfires after the recent onslot of recent wild and forest fires. | |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13865-12 | A. MA #4102 Alternative B of MA #4102 requires there are only native plant species used for reclamation, while Alternatives A and C "prefer" there are native species. This requirement could pose practical problems when implementing reclamation on-the-ground at mine sites, generation facilities, or power line ROWs. For example, native plant species are not always available for seed mixes and in some years, depending on growing conditions for seed companies, they may be impossible to procure. Appropriate substitutions should be allowed to establish desired plant community objectives and this language should be added to Alternatives A and D of MA #4102. The strict limitation in Alternative B could make meeting reclamation obligations difficult or impossible by significantly limiting the number of species that could be included in a seed mix. There is also uncertainty if non-native seed would be allowed as a temporary cover crop under Alternative B. The use of temporary cover crops is required by some other regulatory permits to protect topsoil and control dust. If non-native seed were not allowed for temporary cover crops under this management action, it could put facilities at risk of violations with other permits and regulations. PacifiCorp recommends that the BLM adopt Alternative C under MA #4102, or use A or D with the above substitution language added. | A range of alternatives has been analyzed for desired plant community objectives in Chapter 2.2.6 management action 4102. Analysis of the impacts from the actions in each alternative is found in Chapter 4 |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13865-13 | Alternative B of MA # 4108 refers to MA #4103, which permits the use of only "naturally occurring wildfires, prescribed fire, and biological treatments to meet vegetation management objectives or to protect and enhance crucial and sensitive wildlife habitats." Limiting vegetation management to only these methods will adversely affect PacifiCorp's ability to perform IVM on its ROWs. PacifiCorp recommends that the BLM adopt Alternative A under MA #4108 because it allows for the use of mechanical, chemical, and biological methods of IVM, which is consistent with industry standards and best management practices. | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13865-58 | o "Place infrastructure in already disturbed locations where the habitat has not been fully restored." As stated previously, power line routes are sited based on many factors, including avoiding sensitive resources and considering costs to utility customers. Consequently, utilities may not always be able to site line routes in areas with existing disturbance. PacifiCorp recommends that the BLM modify this stipulation to include "where feasible, practicable, and cost effective." | See first paragraph in Appendix A.1.2 for explanation of Project Design Feature applicability. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13870-2 | The Draft RMP, in Chapter 2, management action 4018 Alternative D proposes such management. "Identify special management areas and incorporate appropriate management*into activity plans. Examples of such special tree populations include: The Douglas Fir on Pine Butte, the northern most extent of Colorado Pinon Pine located in Wild Horse Basin, old growth Juniper stands, and the isolated alpine woodland community on top of Black Mountain at Pine Springs."3 To protect identified special populations of trees, my recommendation is that the BLM should include the above management action (MA) into the Final Rock Springs | A range of alternatives has been analyzed for special forest management areas in Chapter 2.2.6 management action 4018. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13889-1 | 4111 A &D both state two growing seasons should be a consideration to allow for management decisions regarding livestock, but it should be on a site-specific basis to ensure that it is meeting the vegetation and habitat objectives. Riparian and Wetland Resources (4300-4303) 4300 – A Under this Green River RMP, 75% of the riparian areas should, within 10 years, have plans in various states of implementation that would allow riparian areas to achieve or maintain PFC. This provides manageable goals, restoration takes time and if riparian areas are in an upward or declining trend they should be monitored and reasonable accommodations to improve riparian habitat should be discussed by livestock producers, BLM officials and other entities on the ground that can make the BMP's work. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. A range of alternatives has been analyzed for riparian and wetland resources in Chapter 2.2.6 management actions 4300-4303. Analysis of impacts of the actions for each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13892-24 | Page 4-179, Alternative B refers to "designation of new … research natural areas" (RNAs). But there are no RNAs included in the document. Explain this inconsistency. | See updated text on page 4-179. |

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| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13904-2 | MA 4111 Alt B requires 5 years of rest after fire. There is not scientific evidence to support that amount of rest. The area must be evaluated as site specific. Management must be more flexible and adaptive. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13916-2 | MA 4103 Alt B Excludes livestock grazing as a management tool. It should be included like Alternative D | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13916-3 | MA 4111 Alt B requires 5 years of rest after fire. There is not scientific evidence to support that amount of rest. The area must be evaluated as site specific. Management must be more flexible and adaptive. As a wildland firefighter for the BLM, I have seen firsthand the ecological impacts that fire can have. I have also seen the incredibly fast recovery which BLM land in particular is capable of after a fire. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13945-1 | 1. Management Action (MA) #4111 requiring a minimum 5 year deferment of livestock grazing following a wild fire without a replacement source of forage would require the permittee to sell off livestock in the absence of a replacement source of summer and fall grazing. The Draft EIS does not fully account for the social and economic impacts of large scale fires in the RSFO area in one or more permittees is force off their allotments for 5 or more years. | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. See socioeconomics impacts for each alternative in Chapter 4.22. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13951-19 | Page 2-56; Biological Resources #4103 "Use naturally occurring wildfires, prescribed fire, and biological treatments to meet vegetation management objectives or to protect and enhance crucial and sensitive wildlife habitats" -Alternatives C and D recognize livestock grazing is a beneficial tool, in addition to fire and weed & pest measures, to meet vegetation management objectives. Other states have been imploring the use of livestock grazing as a tool to reduce the amount of fuel to slow the speed of wildfires after the recent on slot of wild and forest fires. We are fortunate to have the tools in place to do this. | A range of alternatives has been analyzed for vegetation management objectives in Chapter 2.2.6 management action 4103. Analysis of the impacts from the actions in each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #13951-20 | Page 2-57; Biological Resources #4111 "rest all treated areas a minimum of five growing seasons from livestock grazing." -Alternative D provides for critical site-specific determination regarding rest of treated areas and is preferred because it allows for flexible management. What is the scientific rationale for 5 years? Who would fence out the wild horses, wildlife, and or big game animals if an area is to be rested for five years? To say nothing of the problematic and devastating effects such a lengthy rest would have for livestock operators. As the Governors Task Force also noted, "Alternative A did not provide clear language as to who would be responsible for the fencing out of livestock and big game animals if necessary". | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #14022-8 | MA#4102 SCCD encourages utilizing native species is key when doing reclamation from any activity. However, SCCD also understands that, in certain situations, native species can't outcompete the already existing invasive species so the ability to utilize non-native species in those unique situations is ideal to successful revegetation in parts of the RSFO. | A range of alternatives has been analyzed for desired plant community objectives in Chapter 2.2.6 management action 4102. Analysis of the impacts from the actions in each alternative is found in Chapter 4 |
| 813 - Biological | #14022-9 | MA#4111, SCCD disagrees with the Alternative B action of resting 5 growing seasons. SCCD has seen in the RSFO that resting up to 2 growing seasons has been ample time to see revegetation be successful. The BLM | A range of alternatives has been analyzed for resting treated areas in Chapter 2.2.6 management action 4111. Analysis of impacts of the actions for each alternative is found in Chapter 4. |

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| Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | | could state that rest needs to occur until local cooperatively set objectives have been met, as suggested in Alternative D. | |
| 813 - Biological Resources-Vegetation-Grassland and Shrubland Communities (4100-4112) | #14023-9 | The Rock Springs District RMP should be driven by a conservation agenda, one that will conserve the best of the unique landscapes, habitats, and native biodiversity it sustains. The RMP should re?ect the District's place in the larger Wyoming landscape; its critical role in providing winter habitat for wildlife that summers tens, if not hundreds of miles to the north. It should also protect, and where and whenever possible enhance habitats for resident wildlife and native plants. It should evaluate, consider, and mitigate how energy development impacts air- and watersheds far removed from the district. It should recognize, respect, and protect the history and locations once utilized by our indigenous ancestors. | See The Purpose and Need section of the document page ES-2 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #21-1 | I see unsustainable impacts to rangelands from too much cattle grazing. This is having a lasting impact on native plants and encouraging introduction of exotic species which are capturing ground and preventing recovery. This is causing declines in many wildlife species, particularly grassland birds. Furthermore increased traffic, new roads and pipeline maintenance are further spreading exotic species. BLM efforts to control these impacts are not keeping pace with the problem. One clear solution is to lower cattle stocking and to lessen the duration and frequency of grazing leases. Another solution is to demand greater care be taken by mineral leases and ranchers to reduce the spread of exotic species by cleaning equipment and treating exitic species. Reducing roads would also help with these problems. | Vegetative Communities Livestock Grazing Management are addressed in section 4.6 and 4.16, respectively. Additionally, management actions for all four alternatives are identified in 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9307-1 | Many invasive species have a proportionally larger impact to riparian ecology and removing herbicide use greatly limits tools available for management and does not align with the EPA approval on pesticide labeling. Fremont County Weed and Pest District suggests allowing for the labeled use of herbicides to manage invasive and noxious weeds. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9684-1 | Under 4.6, Vegetation Communities, Alternative A suggests prohibiting herbicide applications within 500 feet of water sources, riparian areas, wetlands, and sensitive resources. From our understanding, this would carry into the subsequent alternatives as well. What is the justification for this prohibition when many herbicide labels allow for use to the water's edge and even within water sources, riparian areas, and wetlands? Many invasive species have a proportionally larger impact to riparian ecology and removing herbicide use greatly limits tools available for management and does not align with the EPA approval on pesticide labeling. Sweetwater County Weed and Pest District suggests allowing for the labeled use of herbicides to manage invasive and noxious weeds. | Analysis can be found in section 4.6. Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9684-2 | * Under 2.2.6 Detailed Alternative Descriptions by Resource, Table 2.1, Biological Resources - Invasive Species and Pest Management (4200-4213), MA# 4207, Alternative B suggests limiting control of noxious and other invasive plant species to mechanical and biological methods. This action will cripple the tools and methods available for managing invasive weeds and appears to be in direct conflict with the RMP's invasive species concerns, management goals, and resource protection emphasis described within the preferred alternative. Sweetwater County Weed and Pest District does not support limiting the tools available for the best management practices of invasive weeds. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9684-3 | * Under 2.2.6 Detailed Alternative Descriptions by Resource, Table 2.1, Biological Resources - Invasive Species and Pest Management (4200-4213), MA# 4212, Alternative B suggests prohibiting aerial applications to ½ mile for riparian and special status plants. This action will severely limit the tools and methods available for managing weeds, such as cheatgrass, which impact upland rangelands adjacent to riparian and special status plants. Sweetwater County Weed and Pest District suggests allowing for the labeled use of aerial application equipment and herbicides for the control of invasive weeds. We support reasonable buffers exceeding pesticide labeling for special status plant protections. | Analysis can be found in section 4.6. Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and | #9684-4 | ? Herbicides are a tool used to keep invasive species managed. They can help improve ecosystem health. Statements that are blatantly incorrect like "chemicals could sicken and kill special wildlife" is irresponsible (section 4-87). As an applicator, we use pesticides in accordance with EPA labels which when applied correctly will not sicken or kill wildlife. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |

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| Pest Management (4200-4213) | | | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9684-5 | The use of the word chemical is uneducated. The proper terminology is pesticide and when referring to managing plants which is how they are commonly used on BLM are called herbicides. Herbicide applications are made by request from BLM staff and are used to improve habitat and natural resources. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9684-6 | We need the ability to manage invasive species in Wilderness Study and Wilderness areas as decided by local BLM field managers. Invasive species know no boundaries. These areas are still subject to invasive species encroachment. Under the direction of the local RSFO, Sweetwater County Weed and Pest needs to be able to access, map, and treat invasive species. Invasive weed management will help to preserve the wilderness characteristics of these designated areas. | Comments addressed in section 4.21. Additionally, management actions for all four alternatives are identified in 4200-4213.§ 6304.22. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9721-8 | Following vegetation treatment, in Alternative B, a blanket statement of 5 years rest is required. This statement of 5 years rest is ignorant of the resilience of the landscape nor does it consider site specific conditions, yearly climatic or environmental changes. In many instances the time of rest should be much less than five years where in others the five-year time line may be insufficient. This statement should be adjusted to state that when management objectives or specific thresholds have been achieved than grazing may continue. | See section 4.4.3. Additionally, management actions for all four alternatives are identified in 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9721-11 | all options need to remain available for consideration including chemical, mechanical, and various grazing systems to achieve vegetation objectives. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9721-12 | Blanket prohibition of chemical application unless supported by label direction will allow vectors of invasive species to remain and reestablish or spread into previously treated areas or become established in areas that previously were not infested. You must follow label directions regarding herbicide utilization rather than further impeding the ability to successfully treat noxious and invasive species by placing further restrictions on herbicide use that are not supported by label direction. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9792-22 | The plan calls for restricting animal damage control throughout the district, and to allow such efforts "on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns." The DEIS is deficient by neglecting to provide any scientific basis for the need for such restrictions. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest | #9792-29 | The DEIS and the preferred alternative do not rely on current science in treatment of animal damage control. Please revise the document to reflect the findings of the following documents: Taylor, David T., et al. "An economic analysis of predator management in Wyoming." Wyoming Animal Damage Management Board Wyoming Department of Agriculture (2009). {Attachment C, indicating the benefits of predator control for both livestock and wildlife). USDA Wildlife Services, 2020. Final Environmental Assessment Predator Damage and Conflict Management in Wyoming. {Attachment D, on reasons for and impact of predator damage and conflict management.} USDA Wildlife Services, 2019, Wolf Damage and Conflict Management in Wyoming. {Attachment E, outlining the Wildlife Services role in wolf conflict management.} Knowlton, F. F., Gese, E. M., & Jaeger, M. | See section 4.16.3. Additionally, see management actions for all four alternatives under 4200-4213 and 4400-4436. |

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| Management (4200-4213) | | M. (1999). Coyote depredation control: An interface between biology and management. Journal of Range Management, 52(5), 398-412. {Attachment F, suggesting that predator control is a tool to assist both livestock and wildlife and: "Predation management requires a partnership among producers and wildlife managers to tailor programs to specific damage situations so the most appropriate techniques can be selected."} | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9792-30 | Page 2-65 Alternative B, states "Allow animal damage control on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns." This is a ridiculous restriction and does not account for the need for wildlife damage control on domestic livestock or wildlife. This restriction is not scientifically justified and would cause harm to livestock producers and private land owners within the RSFO, as well as wildlife. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4400-4436. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9792-31 | On the same page, Alternative C refers to "county pest control." County "pest" control is an incorrect term. Wyoming has "county animal damage management districts" and it is this terminology that should be used in the EIS, and their activities are "wildlife damage management," not "animal damage control" as used in the current document. We suggest that no matter what management alternative is selected, the selected alternative be revised to include: "The BLM would continue to coordinate and to annually review with APHISWS their annual wildlife damage management plan for activities on public lands. Areas where proposed wildlife damage management activities (all or specific methods) are not compatible with BLM planning and management prescriptions or objectives for other resource activities and users, would be identified on a case-by- case basis, and APHIS-WS would be requested to amend or adjust proposed wildlife damage management activities accordingly." | Language and terms have been updated as necessary. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9792-32 | Page 2-60 Alternative B, includes the statement: "Designate, in coordination with APHIS-WS, the entire planning area as a "restricted control area" for animal control. Animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives. Emphasize non-lethal methods." The DEIS does not define "restricted control area," nor is this area reflected on a map in the DEIS. This statement indicates these restrictions would encompass "the entire planning area," which presumably means the entire RSFO. As written, the DEIS indicates "animal control" would be prohibited. This statement should be deleted from the plan. It is not scientifically supported and the broad and undefined statement of "animal control" could prohibit the control of wild horses, feral dogs, rabid skunks, and capture of ungulates for research purposes. | See Glossary for updated terms as necessary. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9792-33 | In addition to the attached documents, we request the BLM consider the following scientific papers and incorporate integrated animal damage management into a new preferred alternative, which would be a revised Alternative D: Raven and coyote removal on sage grouse: https://www.sciencedirect.com/science/article/abs/pii/S0006320716303147 Grouse survival with coyote control: https://wildlife.onlinelibrary.wiley.com/doi/abs/10.1002/jwmg.21296 Video monitoring of sage grouse nests (ravens and badger depredations): https://gaiavisions.org/deiSHerb/FOIAcomments/Public%20Comment%20809%20Attachment/Sage%20Grouse/Coates%20et%20al.%202008%20Predators%20of%20Greater%20Sage-Grouse%20nests%20id.pdf "Known predators of adult and yearling sage-grouse include coyotes (Canis latrans), golden eagles (Aquila chrysaetos), northern harriers (Circus hudsonius; Fletcher et al. 2003), prairie falcons (Falco mexicanus; Hartzler 1974, Conover and Roberts 2017), and large hawks in the genus Buteo (Schroeder et al. 1999, Fletcher et al. 2003, Hagen 2011, Conover and Roberts 2017)." https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1764&context=hwi Wyoming study: "Coyotes were the greatest contributor to nest failure in this study. Other causes of nest failure included abandonment, female mortality, and nest depredation by raven, badger, red fox, striped skunk, gopher snake, and pronghorn." https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2953&=&context=icwdm_usdanwrc&=&seiredir=1&referer=https%253A%252F%252Fscholar.google.com%252Fscholar%253Fhl%253Den%2526as_sdt%253D0%25252C10%2526q%253Deagle%252Bdepredation%252Bof%252Bsage%252Bgrouse%2526btnG%253D#search=%22eagle%20depredation%20sage%20grouse%22 | An analysis for animal damage control methodologies is outside the scope of this RMP. See Planning Criteria in Section 1.4. See management actions for all four alternatives under 4200-4213 and 4400-4436. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9792-34 | The new preferred alternative should include provisions to allow wildlife damage management as indicated: "The BLM would continue to coordinate and to annually review with APHIS-WS their annual wildlife damage management plan for activities on public lands. Areas where proposed wildlife damage management activities (all or specific methods) are not compatible with BLM planning and management prescriptions or objectives for other resource activities and users, would be identified on a case-by- case basis, and APHIS-WS would be requested to amend or adjust proposed wildlife damage management activities accordingly." | See management actions for all four alternatives under 4200-4213 and 4400-4436. |

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| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #9846-4 | TP, page 2-65, states that BLM will "allow animal damage control on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns." However, Page 2-60, the same alternative states "Designate, in coordination with APHIS-WS, the entire planning area as a "restricted control area" for animal control" without specifically define "restricted control area." It also states BLM will "Emphasise non-lethal methods." | See management actions for all four alternatives under 4200-4213 and 4400-4436. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #10324-6 | Within the RMP there was mention of pesticides in regards to water and water quality, however there was no mention of how pesticides affect wildlife and how they will be applied responsibly in the area. I think it is important to include information on how pesticides will be used as some of them harm insect and therefore predator populations, so including a note about appropriately managing pesticide use for wildlife would be important. It is known that pesticide use has increased over the past 50 years, with this number only suggested to continue increasing, and this does not only pose a threat to wildlife, but also humans, and livestock.19 One of the main victims of being affected by pesticides are our bird populations, both raptors and non raptors. As mentioned before raptors are critical to the ecosystem in the area, and specifically rodenticide is a major threat to our scavenging raptors, including owls, hawks, eagles, and vultures. In a study with 149 dead birds, 42% of them had been killed by injecting animals that had been poisoned.20 | See Appendix A for Project Design Features and Best Management Practices. See section 4.23.4. Additionally, see management actions for all four alternatives under 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #10324-8 | Birds are not just the only animals being affected by pesticides, some of our state's most iconic wildlife is as well. A study conducted in Montana found that white-tailed deer who consumed pesticides were more likely to have developmental effects and a higher rate of disease later on in life.22 Unfortunately, that is just the start, the paper also found that birds and deer were susceptible to eye diseases, impaired immune systems, skin disorders, lymphatic disorders, and liver disease.22 As mentioned in the chronic wasting disease portion of my comment letter, Wyoming has a culture built upon our deer populations, and the effects of pesticides are now affecting these important species. | An in-depth analysis of how all wildlife respond to pesticides in outside the scope of this RMP. See Section 1.4 for the Planning Criteria. See section 4.23.4. Additionally, see management actions for all four alternatives under 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13064-3 | The restrictions imposed on animal control and noxious weeds control would significantly affect the agricultural industry, as many ranchers rely on animal damage management that occurs on public lands to protect livestock located on both private and public land, and many farmers rely on controlling noxious weeds to protect their crops. | See management actions for all four alternatives under 4200-4213 and 4400-4436. Impacts to livestock are discussed in section 4.16. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13210-5 | 5. Place no restrictions on current authorities to authorize new range improvements, maintain existing improvements, and conduct predator control activities to protect livestock | See management actions for all four alternatives under 6400-6417. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13210-63 | 4209 Alternative A No similar action Alterative A is preferred because Alternatives B and D would impact water management in the KSLA, and are worded too broadly regarding Wyoming's water rights, and lack geographic scoping. | See management actions for all four alternatives under 2400-2419. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13210-64 | 4211 Alternative C with amended/ additional text This management action supports agreements in principle # 4 and # 5. The task force supports Alternative C with the following edits: delete the first sentence and amend the language to read as follows (new text in red): Discuss and consider control techniques and methods at the annual management meeting between the BLM and APHIS-WS and include the Wyoming Department of Agriculture in these meetings. | See a range of alternatives for Invasive Species and Pest Management in MA 4200-4213. Impacts from each alternative can be found in Chapter 4. |

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| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13219-1 | Alternative B also limits "control of noxious weeds and other invasive species to mechanical and biological methods." The restrictions imposed on animal control and noxious weeds control would significantly affect the agricultural industry, as many ranchers rely on animal damage management that occurs on public lands to protect livestock located on both private and public land, and many farmers rely on controlling noxious weeds to protect their crops. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13300-1 | Alternative B would negatively impact Wyoming's agriculture industry especially livestock grazing. Alternative B designates that, "in coordination with [Animal and Plant Health Inspection Service-Wildlife Services], the entire planning area as a 'restricted control area' for animal control." Alternative B further provides that "animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives" and there would be an emphasis on "non-lethal methods." This would significantly expand the area of restricted animal control to the entire Rock Springs planning area. Under Alternative A, restricted animal control is imposed solely in the Jack Morrow Hills area. Alternative B also limits "control of noxious weeds and other invasive species to mechanical and biological methods." The restrictions imposed on animal control and noxious weeds control would significantly affect the agricultural industry, as many ranchers rely on animal damage management that occurs on public lands to protect livestock located on both private and public land, and many farmers rely on controlling noxious weeds to protect their crops. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13377-1 | Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing" This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing" There is no evidence in the draft Rock Springs RMPthat supports an increase of three growing seasons for resting treated areas from livestock grazing. If there was ample evidence to support this extended resting period, it could potentially be discussed with the permittees and practices found to make this applicable. | Impacts to livestock are discussed in section 4.16. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13542-30 | MA#4207. Alternative B. 2-59 What does the BLM foresee as the monitoring methods and protocols for MA#4207 so the facility can determine potential business impacts of this requirement? This stipulation should not apply to all activities, as some activities are not needed. Please analyze, disclose to the public, and select reasonable waivers and/or exceptions. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. See Appendix A.2 for BMPs. Monitoring methods are implementation level activities and out of scope for the EIS. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13542-31 | MA#4211. Alternative B. 2-60 Several industrial facilities in the RMP planning area struggle with roosting ravens. Common ravens (Corvus corax) are considered migratory birds and receive federal protection from the Migratory Bird Treaty Act, but few ravens in southwest Wyoming migrate. Currently the facilities work with the US Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) to use lethal and non-lethal methods to combat the birds. Allowing the non-migratory birds to feed and roost creates health and safety concerns for employees and contractors due to the amount of debris and fecal matter left on platforms and access ways that workers must encounter on a daily basis. The USDA APHIS uses avicide, effigies, and other methods to deter the ravens. With Alternative B, the USDA APHIS will not be able to effectively manage the ravens in the area and protect local workers from unsanitary working conditions. Commentary: Some successful methods to mitigate conflicts caused by common ravens in an industrial environment (usu.edu). Please analyze and disclose to the public the BLM's reasons for not following the regulations and recommendations of the expert federal agency on this matter. | An analysis on ravens, including methods to control unsanitary working conditions, is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13542-32 | MA#4212. Alternatives B, C, and D. 2-60 Prohibiting aerial applications of chemicals near wetlands, riparian areas, aquatic habitats, and Special Status plants does not follow an integrated pest management approach. This would prohibit Sweetwater County Weed and Pest from applying aerial applications for treatment of adult mosquitoes that protect the health and well-being of residents and workers in the area from West Nile virus and other encephalitis's that are transmitted by infected mosquitoes. They have proper authorization from the USDA to apply these pesticides and would be restricted from using them in areas where mosquitoes breed the most. Aerial applications of chemicals near these areas should be considered on a case-by-case basis for a more realistic approach. Please analyze and disclose to the public the BLM's reasons for not following the regulations and recommendations of the expert federal and state agencies on this matter. | A range of alternatives has been proposed for MA 4212, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources- | #13542-33 | MA#4213. Alternatives B, C, and D. 2-60 Prohibiting vehicle and hand application of chemicals near wetlands, riparian areas, aquatic habitats, and Special Status plants does not follow an integrated pest management approach. Invasive weeds, such as perennial pepperweed often grow in these areas and would not be able to be | A range of alternatives has been proposed for MA 4213, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |

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| Invasive Species and Pest Management (4200-4213) | | properly managed. This also would prevent local trona mines from applying larvicide in puddles around the facility to protect the health and well-being of residents and workers in the area from West Nile virus and other encephalitis's that are transmitted by infected mosquitoes. Vehicle and hand application of these chemicals should be considered on a case-by-case basis for a more realistic approach. Please analyze and disclose to the public the BLM's reasons for not following the regulations and recommendations of the expert federal and state agencies on this matter. | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13542-50 | Section 3.6. Invasive Species and Pest Management. 3-6 Raven pest control is not discussed in this section. It is known that the USDA APHIS-WS assists industrial facilities and landfills to control raven populations in the RSFO management area. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | An analysis on ravens, including local methodologies used by local industries, is outside the scope of this RMP. See section 3.6. Additionally, see management actions for all four alternatives under 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13720-16 | A.1.6 Reclamation With the rapid expansion of cheatgrass across the West, including in the Rock Springs management area, there must be a more rapid and robust response to cheatgrass infestation than is represented in the Reclamation section. Cheatgrass treatment should be especially emphasized in this section, yet invasive vegetation is not even mentioned here as it should be. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. App A describes project design features and BMPs common to all projects. Species specific control would be based on site specific parameters which are beyond the scope of a land use planning document. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13720-17 | Although the BLM requires oil and gas operators to complete well pad, road, and surface disturbance reclamation, it appears that operators' efforts are failing to control this powerfully invasive and destructive species that is inundating Sublette and Sweetwater counties, and much of the West. We respectfully request that the BLM recognizes the severity of cheatgrass infestation that is spreading from the vectors in Sublette and Sweetwater natural gas fields to other public lands, and we ask that BLM and oil and gas operators address with more urgency and effectiveness this public land habitat threat. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. Impacts to vegetative communities from oil and gas activity is analyzed in Section 4.6. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13751-126 | MA #4212 Alternative B Prohibit aerial application of chemicals within 2,640 feet (½ mile) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Not Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Mosquito control and other pests may also require aerial applications. Future control of west nile virus could be impacted by this restriction. Alternative C Prohibit aerial application of chemicals within 100 feet of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. Often invasive species propagate from riparian, wetland and aquatic habitats. Mosquito control and other pests may also require aerial applications. Alternative D Prohibit aerial application of chemicals within 1,320 feet (¼ mile) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Consider exceptions on a case-by-case basis to manage riparian weed species. Apply chemicals in accordance with label requirements. Industry Position: Not Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Mosquito control and other pests may also require aerial applications. Future control of west nile virus could be impacted by this restriction. | Impacts from invasive species are discussed throughout Chapter 4. See also Appendix A for Best Management Practices. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13751-127 | MA #4213 ALT B Prohibit vehicle and hand application of chemicals within 1,320 feet (¼ mile) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Not Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Application within 1,320 feet can be accomplished without harm to these resources when applied and handled appropriately. ALT C Prohibit vehicle and hand application of chemicals within 25 feet (by vehicle) or 10 feet (by hand) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. ALT D Prohibit vehicle and hand application of chemicals within 25 feet (by vehicle) or 10 feet (by hand) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Consider exceptions on a case-by- case | Impacts from invasive species are discussed throughout Chapter 4. See also Appendix A for Best Management Practices. |

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| | | basis to manage riparian weed species. Apply chemicals in accordance with label requirements. Industry Position: Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13758-1 | MA#4207 Alternative B limits the control of noxious weeds and other invasive plant species to mechanical and biological methods. This BRI l, 12 and 05 goal would limit the ability to treat early, small infestations of noxious weeds and or pests allowing for the proliferation and exponential spread. The limitation of all essential tools to stop an infestation would be devastating to the early detection and control of an unwanted species. Best management practices according to the BLM guidelines are a suite of techniques that guide or may be applied to aid in desired outcomes. Eliminating chemical use does not seem to be a suitable alternative in a BMP. | Impacts from invasive species are discussed throughout Chapter 4. See also Appendix A for Best Management Practices. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13758-2 | MA#4212 All alternatives are beyond the EPA regulations and labeling requirements for several herbicides under FIFRA. Pesticide labels specially specify distance from riparian areas for both ground and aerial treatments. Pesticide applicators are in violation of the law if they do not follow label requirements. Not allowing the use of approved pesticides adjacent to or labeled for aquatic use would cripple the ability to protect habitat down stream and decrease the value of the riparian system for wildlife, livestock and recreation. Invasive species have a considerable impact on the habitat and ecosystem of the riparian areas. Salt cedar and cheatgrass are excellent examples of the effect it has on watershed health. | A range of alternatives has been proposed for MA 4212, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13758-3 | Livestock grazing, as referred to on page 4-64, Chapter 4.7, does not always cause invasive species. Grazing can be a used as a tool to manage weeds in an Integrated Pest Management system and help keep the ecosystem healthy. Invasive species are introduced to systems in a variety of ways including but not limited to: OHV's, recreation, energy, people, and native wildlife. Thus, inclusion of education of the public in 4207 is a critical component of Invasive Pest Management across all alternatives. All alternative discussed the importance of cleaning vehicles, boats, equipment and OHV's which is critical to limit the spread of invasive species. | See section 4.7.2. Additionally, management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13758-4 | Blanket statements in 4.7 page 4-60, "Chemical control could damage habitat and could sicken or kill wildlife if treated vegetation were consumed or wildlife were in contact with herbicides," should be clarified. Herbicides are a tool used to keep invasive species managed and can help improve ecosystem health. Pesticides used in accordance with EPA labels which when applied correctly will not sicken or kill wildlife. | See section 4.7.2. Additionally, management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13758-5 | Weeds have no boundaries and if not established in Wilderness areas they could be and Weed and Pest Districts need the ability to manage invasive species in Wilderness Study and Wilderness areas as decided by local BLM field managers. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13758-6 | There should not be a restriction on the annual acres treated within the RMP. Infestation of invasive species should be controlled as funding and methods allow in accordance with the RMP invasive species section and the Wyoming Weed and Pest Act of 1973 | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213 |
| 814 - Biological Resources-Invasive Species and Pest | #13769-4 | 3. We urge the BLM to consider the synergistic effects of increasing feral horse populations and decreasing forage production in the area due to climate change. We have observed considerable impacts of wild horse forage consumption. The impacts are significant because unlike migrating wildlife or cattle, feral horses graze the same areas year around. Also, horse digestive physiology forces horses to intake more forage and use it more inefficiently than native ungulates. Horses are clearly noteffectively managed and their populations increase each year. Horses also concentrate in certain areas like watering holes and the few riparian areas. We have observed a decrease in both the quantity and diversity of forage in these habitats. For example, the increase in non-palatable species like Prickly Pear Cactus and Rubber Rabbit Brush in areas of heavy grazing is concerning. While the | Management actions for all four alternatives with regards to management of Wild horses are outlined in Management Actions 4900-4910. Impacts due to wild horses are described in Section 4.9. |

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| Management (4200-4213) | | former can be partially attributed to drought and a changing climate, we are concerned that uncontrolled feral horse populations will result in irreversible change in species richness and net primary productivity. We report numerous 'stud pile' areas that are devoid of any vegetation because of repeated occupancy and trampling by numerous stud horses. A decrease in plant cover results in increased soil erosion and a decrease in forage production. While not documented scientifically, we observe in these areas that the trampling is so severe that it appears as if sub-soil salts are leached to the surface and form alkaline deposits that further reduce plant production and lead to the spread of noxious weeks (e.g. Halogeten (Halogeton glomeratus)). | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13784-16 | MA#4207, Alt. B: "Limit control of noxious weeds and other invasive plant species to mechanical and biological methods." Comment: The limited approach to address annual grasses, including cheatgrass through chemical applications will dramatically prohibit livestock grazing permittees from achieving Wyoming Land Health Standards for upland or sensitive species. The recent efforts to approve Rejuvra for long-term control of cheatgrass on BLM Rock Springs Field Office lands will not apply to the Rock Springs Field Office under Alternative B. This lack of weed suppression will have a cumulative impact to private, state, and other federal lands. | A range of alternatives has been proposed for MA 4207, with the impacts for each alternative described in Chapter 4. Additionally, impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13784-18 | MA#4211, Alt. B: "Designate, in coordination with APHIS-WS, the entire planning area as a "restricted control area" for animal control. Animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives. Emphasize non-lethal methods." (p.2-50). Comment: The WDA Animal Damage Management Board (ADMB) was founded by state statute 11-6-301 through 11-6-313, to promote best management practices for predator related issues across the state to benefit livestock producers, wildlife populations, and human health and safety. The Wyoming predator program operates under the Wyoming Statutes WS 11-6-101 through 11-6-108, WS 11-6- 201 through 11-6-210 and Chapter 14 Aerial hunting regulations. In conjunction with USDA-Wildlife Services and the County Predator boards all trappers work with an integrated approach to animal damage. The methods include nonlethal control (herders, fencing, fladry and guard animal), ground work (ex. hunting trapping snaring), and aerial control. A reduction in animal damage control due to budget cuts has had a definite impact on the producer's losses as reflected in the 2021 Wyoming Ag Statistics report: https://www._nass^jsda.£ov/Statistics by State/Wyoming/Publications/Annual Statistical Bulletin/ The predation by coyotes has risen 57% from 9,400 head of sheep and lambs in 2015 to 24,800 head in 2021. The value of these losses of sheep and lambs has risen from $1,671,000 to $2,643,000. These losses have had a significant impact on the sheep producers in the State. Several Wyoming Sheep producers utilize the area in question to winter their sheep herds. Reducing or eliminating the ability to use lethal control under Alternative B, will further increase the economic impact to producers. The Wyoming predator program operating under the Wyoming Statutes WS 11-6-205 states county boards are also responsible for the protection of wildlife and the Wyoming Game and Fish Department has provided more money to the ADMB for removal of coyotes during fawning season, the county boards also work with USDA/Wildlife Services for raven removal. Wyoming operates under the ADMB Chapter 2 regulations for wolf management funding. Wolf work continues to be a major concern as the wolf population continues to spread across the state. The Rock Springs Field Office is a main corridor for wolves. If these lands are restricted to non-lethal methods, wolves will expand their territory and create issues for the control objectives set by the Wyoming Game and Fish Department: With most wolves in the predator zone not being collared, removing the wolves when depredation occurs can be very expensive. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. Impacts from predatory species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13784-19 | MA#4212, Alt. B: "Prohibit aerial application of chemicals within 2,640 feet (1/2 mile) of wetlands, riparian areas, aquatic habitats and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species." (p. 2-50) Comment: The science behind the need for application of specific herbicides is found on the label, which each alternative includes. To go beyond the label and increase buffers of each individual chemical is not only unnecessary, but based on opinion rather than science. | A range of alternatives has been proposed for MA 4212, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13784-20 | MA#4213, Alt. B: "Prohibit vehicles and hand application of chemicals within 1320 feet (1/4 mile) of wetlands..." (p.2-60) Comment: The science behind the need for application of specific herbicides is found on the label, which each alternative includes. To go beyond the label and increase buffers beyond the label of each individual chemical is not only unnecessary, but based on opinion rather than science. | A range of alternatives has been proposed for MA 4213, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources- | #13784-77 | "Alternative B would restrict certain management practices, which could increase costs. Chemical treatments for vegetation management are specifically allowed under Alternative A, but not included as an option under Alternative B."(p.4-259) Comment: Areas infested with cheatgrass, or other noxious and invasive weed species, | See section 4.23.5. Additionally, management actions for all four alternatives with regards to treatment of invasive species and pest management are found in Management Actions 4200-4213. |

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| Invasive Species and Pest Management (4200-4213) | | can be one of the reasons a Wyoming Land Health Standards determination is not met, especially pertaining to Greater Sage-grouse. Reductions in livestock grazing could result in a 60% reduction by the third year due to not meeting the Standard for Special Status Species. However, BLM's Alternative B prohibits the use of chemical treatments to address these noxious and invasive species. Unless weeds are addressed, there is no possibility to work towards meeting the Standards. This is just one more example of cumulative effects and direct economic impacts to the livestock grazing industry where the analysis of Alternative B fails to address or identify the full impact of the Preferred Alternative. | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13787-52 | MA #4209 BR-14, BR-12, BR-13 No similar action Prohibit actions involving the transfer of water from watersheds with aquatic invasive species or fish diseases to other waters. Industry position: Not acceptable Reason: Industry recognizes the ecological harm presented by aquatic invasive species and fish diseases and supports preventing their spread. However, the geographic reach of this prohibition is not clear and needs to be clarified. This prohibition allows no transfer of water for beneficial use for industrial purposes wherein water could be stored or treated and not immediately returned to receiving waters. No similar action Prohibit, except to protect life and property, and to prevent the spread of aquatic invasive species, the movement of water from one fourth level (8-digit hydrological unit code) watershed to another fourth level another fourth level (8-digit hydrological unit code) watershed. If movement of water has occurred, WGFD will be contacted so that they can begin a monitoring program. Industry position: Not acceptable Reason: Industry notes that Map 3-1 Water Resources shows two hydrological unit boundaries within the KSLA. One boundary is in the southern and eastern KSLA and divides the Blacks Fork and the Upper Green-Flaming Gorge hydrological units. The second is in the northern KSLA and divides the Blacks Fork and Upper Green hydrological units. Any transfers of water would be for beneficial use for industrial purposes and may include solution mining. Water for solution mining would be process water and subject to WYPDES discharge requirements or long term storage. Water transfers will be allowed to supply water needs for trona production. Spent water will be subject to WYPDES discharge standard or will be stored long term. Management of transferred and spent water will support the objectives in the Wyoming Aquatic Invasive Species Management Plan as updated/revised (WGFD 2010). Language is taken from Alternative B of MA #4208. | Assumptions for Water Resources are found in Section 4.5.1. Additionally, see Section 1.4 Planning Criteria for a description of the planning area covered by this document. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13787-53 | MA #4212 BR-11 BR-28 BR-30 No similar action Prohibit aerial application of chemicals within 2,640 feet (½ mile) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Not Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Mosquito control and other pests may also require aerial applications. Future control of west nile virus could be impacted by this restriction. Prohibit aerial application of chemicals within 100 feet of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. Often invasive species propagate from riparian, wetland and aquatic habitats. Mosquito control and other pests may also require aerial applications. Prohibit aerial application of chemicals within 1,320 feet (¼ mile) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Consider exceptions on a case-by-case basis to manage riparian weed species. Apply chemicals in accordance with label requirements. Industry Position: Not Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Mosquito control and other pests may also require aerial applications. Future control of west nile virus could be impacted by this restriction. Alternative C is acceptable | A range of alternatives has been proposed for MA 4212, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13787-54 | MA #4213 BR-11, BR-28, BR-30 No similar action Prohibit vehicle and hand application of chemicals within 1,320 feet (¼ mile) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Not acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Application within 1,320 feet can be accomplished without harm to these resources when applied and handled appropriately. Prohibit vehicle and hand application of chemicals within 25 feet (by vehicle) or 10 feet (by hand) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Apply chemicals in accordance with label requirements. Exceptions could be applied to manage riparian weed species. Industry Position: Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Prohibit vehicle and hand application of chemicals within 25 feet (by vehicle) or 10 feet (by hand) of wetlands, riparian areas, aquatic habitats, and Special Status plants. Consider exceptions on a case-by- case basis to manage riparian weed species. Apply chemicals in accordance with label requirements. Industry Position: Acceptable Reason: The concern is understood regarding the use of chemicals near water bodies. However, often invasive species propagate from riparian, wetland and aquatic habitats. Alternatives C and D are acceptable | A range of alternatives has been proposed for MA 4213, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |
| 814 - Biological | #13865-11 | 4. Vegetative Communities and Invasive Species As detailed in Chapter 3-6 of the DEIS, invasive plants and noxious weeds can impact ecosystems. PacifiCorp agrees that invasive plants and noxious weeds can impact | See section 4.6 for all four alternatives. Additionally, management actions for all four alternatives with regards to treatment of invasive species and pest management are found in Management Actions 4200-4213. |

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| Resources-Invasive Species and Pest Management (4200-4213) | | ecosystems and also recognizes the role some invasive plant species can play in wildfire risk and severity. As part of its vegetation management and reclamation activities, PacifiCorp implements BMPs as applicable to prevent the spread of noxious weeds. For example, PacifiCorp's vegetation management for power line ROWs utilizes IVM best practices wherever possible to conduct cover type conversion and to cultivate stable, low-growing plant communities comprised of plants that will not interfere with power lines. IVM can create natural, diverse, and sustaining ecosystems that encourage the growth of native plant species and can increase plant diversity. Several of the management actions under Alternative B identified in Table 2-1 would hinder our ability to implement IVM or other best practices, and to control or prevent the spread of noxious/invasive plants. | |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13865-14 | C. MA #4207 Alternative B of MA #4207 would restrict the control of noxious weeds and other invasive plant species to only mechanical or biological methods, thereby reducing the effectiveness of PacifiCorp's current IVM plan for controlling vegetation along power line ROWs. The use of only mechanical or biological treatments as prescribed by Alternative B may contribute to resource impacts resulting from repeated and prolonged treatments by vegetation management crews. Herbicide use can be more effective than mechanical or biological controls in reducing noxious weeds and non-desirable tree species, resulting in the need for less frequent treatments. Herbicide application requires a shorter duration of work and less noise compared to mechanical treatments and could thereby reduce disturbance impacts to wildlife in certain situations. PacifiCorp encourages the BLM to adopt Alternative C under MA #4207, which will allow it to continue its current IVM plan to target invasive plant species with the application of herbicides according to their label. In addition to impacting PacifiCorp's ability to perform vegetation management along its ROWs, Alternative B of MA #4207 would impact the ability of BCC to conduct weed control. The restrictions against chemical controls of noxious weeds in Alternative B conflict with permits, lease obligations, and regulations of different state and federal agencies, including the Permit to Mine issued by the DEQ Land Quality Division, and requirements of the Mine Safety and Health Administration (MSHA) to conduct weed/vegetation control in specific locations. Certain species, such as salt cedar, are only temporarily suppressed by mechanical removal and tend to resprout vigorously, and chemical treatments, which would be prohibited under Alternative B of MA #4207, are highly effective at inhibiting the spread of this species. The BLM currently requires Pesticide Use Plans at the BCC mine, and chemical weed control is an important part of this Integrated Pest Management. Under MA #4207, PacifiCorp recommends that BLM adopt Alternatives C or D. Similarly, Alternative B of MA #4207 dictates the use of BMPs (per Appendix A) for noxious/invasive weeds. However, in Appendix A (A.1.4), general BMPs for all alternatives include "Control the spread and effects of invasive non-native plant species (Evangelista et al. 2011), including treating weeds prior to surface disturbance." This general BMP is inconsistent with Alternative B, which prohibits the use of chemicals for controlling noxious/invasive weeds. Furthermore, under MA #4212 and #4213, limits on chemical use within certain distances of streams, rivers, and wetlands are included for Alternative B. It is unclear why these limits are included for Alternative B when chemical control is not allowed under that alternative. | A range of alternatives has been proposed for MA 4207, with the impacts for each alternative described in Chapter 4. Additionally, impacts from invasive species are discussed throughout Chapter 4. See also Appendix A for Best Management Practices. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13865-15 | D. MA #4213 Despite the contradiction in the forgoing paragraph, MA #4213, which prohibits vehicle and hand application of chemicals within ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status plants, would severely limit PacifiCorp's ability to perform IVM on its ROWs. IVM utilizing mechanical, biological, and chemical treatments is a critical component of vegetation maintenance that selectively targets invasive species of plants, as well as other non-desirable vegetation. Alternative B would place large restrictions on the areas in which herbicide treatments can be used as an effective tool. Alternatives A (preferred), C, or D of MA #4213 will allow PacifiCorp to continue its current IVM plan to target invasive plant species with the application of herbicides according to their label. Herbicides have been safely used by PacifiCorp near wetland and riparian areas with the BLM's approval for many years. Because PacifiCorp has numerous linear utility corridors, power lines inevitably cross streams and riparian areas, and existing ROW and special use permits issued by BLM may require weed control. Consequently, restrictions on the use of chemicals under Alternative B of MA #4207 and #4213, and the wide buffers under Alternative B of MA #4213 reduce PacifiCorp's options for effective treatments of noxious or invasive plant species. Likewise, the prohibition of chemical weed control within a ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status species, as identified in Alternative B of MA #4213, could jeopardize BCC's compliance with existing permit, lease, or regulatory requirements, as described previously. Alternatives A (preferred), C, or D of MA #4213 provide more flexibility for PacifiCorp to use the appropriate and most effective method of control (biological, mechanical, or chemical), while also including reasonable buffers around aquatic features. Reclamation of decommissioned mine areas, roads, or utility corridors includes relatively large areas that have had significant soil disturbance, and typically have numerous invasive plant species. For effective reclamation, it is best to have every tool to prevent those species from becoming established, particularly in the early stages of reclamation. Removing chemical treatment from the options would reduce the effectiveness of reclamation and have a lasting negative effect on the soils, vegetation, and subsequent hydrology of reclaimed sites. 5. Wildlife and Fisheries Habitat Several of the management actions in this section of the DEIS conflict with permits or guidance issued by the U.S. Fish and Wildlife Service (USFWS) under the Migratory Bird Treaty Act (MBTA; 1918) and the Bald and Golden Eagle Protection Act (BGEPA; 1940) and overstep BLM's authority to manage habitat versus species. In addition, the management actions in this section should be consistent with the BLM's Biological Resources Goal # BR-21 which discusses accordance with these acts. | A range of alternatives has been proposed for MA 4213, with the impacts for each of the alternatives presented in Chapter 4. Impacts from invasive species are discussed throughout Chapter 4. |

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| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13865-32 | 6. Wildland Fire Ecology and Management PacifiCorp is implementing wildfire system hardening activities throughout its service territory. These actions include, but are not limited to, increased line patrols, conversion from bare conductor to covered conductor on distribution lines, changing out equipment (e.g., non-expulsion arresters and fusing), conversion from overhead to underground distribution lines, pole replacements, fire wrapping of poles, installation of avian and animal guards, installation of pole-mounted weather monitoring stations, and increased scope and frequency of vegetation management with ROWs. In addition to addressing fire risks associated with its facilities and surrounding vegetation, utility ROWs provide a supplemental benefit acting as potential fuel breaks and/or providing access routes for emergency responders during fires. Historically the area within the RSFO has been unimpacted by significant wildfires; however, trends across the West point towards an increase in overall fire risk. Over the past 20 years, the number and scope of fires has increased. The DEIS states that there have only been three significant fires since 1984, yet all three of those occurred after 2000. PacifiCorp is focused on reducing this increasing risk via line and vegetation inspections, system automation (which more quickly de-energizes lines in the event of a fault), installing different pieces of equipment, and other system hardening efforts. These efforts require access to existing infrastructure, as well as system upgrades where appropriate. While the BLM should consider past fires to inform risk, it should also consider the trending increase and ensure PacifiCorp and other utilities can act as partners to reduce wildfire risks. The DEIS acknowledges the importance of human health and safety (see MA #12, which states, "Human health and safety needs supersede all actions in this plan"); however, numerous MAs throughout the draft plan would hinder actions to maintain human health and safety by hindering wildfire prevention. PacifiCorp is concerned that the draft RMP, and specifically preferred Alternative B, does not address the importance of utility system hardening work as critical for human health and safety, and the need for this work to be conducted without administrative delays. System hardening may be considered emergency or O&M work, depending on the circumstances. These activities require utility access to ensure the safe operation of the electric grid. PacifiCorp will require travel through BLM-managed lands to access utility infrastructure for wildfire maintenance activities, and the extensive restrictions included in Alternative B could prohibit of delay this access, potentially putting infrastructure and landscapes at risk. While wildfire is specifically addressed in the DEIS in Chapter 4.10, restrictions elsewhere in the draft plan specifically related to ACECs, seasonal wildlife closures, and ROW restrictions, can impact utility travel and access to ROWs, potentially delaying or prohibiting necessary and time sensitive system hardening work. Specifically, MA #3007 restricts the use of heavy equipment for fire and fuels management that could cause surface disturbance. Electric utilities perform wildfire prevention activities, including vegetation management and infrastructure system hardening, that may use trucks, machinery, or other heavy equipment. Consequently, PacifiCorp recommends that the BLM adopt Alterative C under MA #3007, as this management action protects sensitive areas while still allowing for wildfire prevention activities. Restrictions in the DEIS related to herbicide use may also impact PacifiCorp's ability to implement its wildfire prevention activities. As proposed in Alternative B, prohibiting vehicle and hand application of chemicals within ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status plants would severely limit PacifiCorp's ability to perform integrated vegetation management in its ROWs by placing large restrictions on the areas in which herbicide treatments can be used. Prohibiting herbicide use will result in increased fuel loads on the landscape, a concern for wildfire risk. PacifiCorp's integrated vegetation management plan is consistent with Alternative A's focus on management actions utilizing mechanical and chemical treatments of vegetation in fire ecology management, as described in Chapter 4.10.2 of the DEIS. In summary, PacifiCorp recommends that the BLM adopt the following management actions related to wildfire: ? Allow utility system hardening and related wildfire risk reduction work to proceed without additional restrictions, review, or prior authorization. This is consistent with BLM IM 2023-034 that states: o "To facilitate and expedite O&M activities necessary to reduce the risk of wildfire, the BLM affirms that ROW holders are authorized and responsible to carry out O&M work including inspections to prevent wildfire. The BLM will encourage ROW holders to provide the Authorized Officer prior oral or written notification of O&M activities. The BLM Field Office will request that ROW holders notify the appropriate BLM Field Office within 30 days of completing such work unless this timeframe conflicts with applicable law and regulation. If the ROW holder determines that O&M work is necessary to prevent and suppress wildfire, then Field Offices should not generally require the ROW holder to obtain any additional notice to proceed or other form of prior approval before conducting the O&M work." ? As detailed above, PacifiCorp recommends that the BLM adopt Alterative A in regard to Wildland Fire Ecology and Management (Chapter 4.10.2). ? As detailed above, PacifiCorp recommend that the BLM adopt Alterative C under MA #3007. | A range of alternatives for Wildland Fire Management has been proposed in MA 3000-3013. Impacts from each alternative can be found in Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13865-52 | Sterilization of vegetation is required around certain structures such as fuel tanks, propane tanks, and electrical substations and switches to prevent fires. If BCC is not allowed to used chemicals to help prevent the growth of vegetation in these areas unsafe conditions could arise. | See section 4.6 for all four alternatives. Additionally, management actions for all four alternatives with regards to treatment of invasive species and pest management are found in Management Actions 4200-4213. |

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| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13865-57 | o "Control the spread and effects of invasive non-native plant species (Evangelista et al. 2011), including treating weeds prior to surface disturbance and washing vehicles and equipment at designated wash stations when constructing in areas with weed infestations." PacifiCorp routinely washes its vehicles off-site in order to maintain a fleet of clean vehicles and prevent the spread of weed seeds. However, vehicles must travel from commercial wash stations to field sites. Some projects have required on-site vehicle wash stations, and our experience with these facilities has raised concerns. Such wash sites, which are not as efficient as commercial wash stations, can expend water resources that are otherwise limited. During cold temperatures, wash stations can result in icy conditions that pose a safety hazard to those working around them. Consequently, PacifiCorp requests that the BLM allow off-site wash stations to be an acceptable method to prevent the spread of weed seeds. | Refer to Appendix A (Project Design Features) for a list of Best Management Practices (BMPs) regarding designated wash stations. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13899-103 | The most effective treatment for cheatgrass is chemical control and we oppose Alternative B's moratorium on herbicides (MA-4207), supporting instead the management actions proposed in Alternative D as providing a full suite of tools to address these species. There is general agreement that prevention and containment of weed infestations is more cost-effective and productive than rehabilitation and field office staff, contractors, and permittees should be afforded access to the best tools available to keep invasive species like cheatgrass in check. 265 | Management actions for all four alternatives with regards to treatment of invasive species and pest management are found in Management Actions 4200-4213. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13951-21 | Page 2-59; Biological Resources #4209 "Prohibit actions involving the transfer of water from watersheds with aquatic invasive species or fish diseases to other waters." - Alterative A is preferred because Alternatives B and D would impact water management in the KSLA, and are worded too broadly regarding Wyoming's water rights. They also lack geographic scoping. | Assumptions for Water Resources are found in Section 4.5.1. A full range of alternatives has been proposed for MA 4209, with impacts for each alternative presented in Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #13951-22 | Page 2-60; Biological Resources #4211 "Designate, in coordination with APHIS-WS, the entire planning area as a "restricted control area" for animal control. Animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives. Emphasize non-lethal methods. Discuss control techniques and methods at the annual management meeting between the BLM and APHIS-WS." Our ranch is in the heart of a declared predator area and to emphasize non-lethal methods and restricting predator control efforts would be detrimental to our livelihood. Last year we purchased 50 head of bred cows and heifers and calved them out at our ranch headquarters; we lost more than 20 babies to the predators. The area supervisor for the Wyoming Game and Fish came and determined it was coyotes. I've included a couple of pictures that cant even begin to express the heartbreak! Lethal methods still need to be allowed. I'm in agreement with both the Wyoming Stock Growers Association and the Governor's Task Force in choosing Alternative C and let the annual management meeting between the BLM, APHIS-WS, and the Wyoming Department of Agriculture discuss and consider control techniques and methods. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. Impacts from predatory species are discussed throughout Chapter 4. |
| 814 - Biological Resources-Invasive Species and Pest Management (4200-4213) | #14019-2 | WACD recognizes the importance of weed and pest mitigation to support meaningful conservation work. The constraints that Alternative B places on control measures severely undermines the capability to control undesirable species. This alternative places unreasonable restrictions based on arbitrary metrics, such as a half mile buffers. This creates safe harbors for weeds, undermining successful reduction in the seed bank and in many cases may bar eradication. Among other effects, reductions in the efficacy of treatments due to restrictions on methods, plant species and locations of treatments burdensomely increases treatment costs. | Management actions for all four alternatives with regards to treatment of invasive species and pest management are outlined in Management Actions 4200-4213. Impacts from predatory species are discussed throughout Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #539-10 | In LSGA's situation, the BLM has made the determination that our Little Sandy allotment is not meeting the BLM's riparian habitat standards, citing livestock use as the central cause.32 The punishment for not meeting the BLM's rangeland health protocols are a 20% reduction in AUMs for up to 3 years.33 This is an extremely frustrating item to see in the RMP because LSGA is on the phone and meeting with our range conservationist either weekly or bi-weekly and this has never come up in our conversations in terms of what a riparian habitat is and its regulatory consequences. There are no maps available showing where the riparian areas are. The lack of transparency as to what ranchers are being charged with is shocking. We can only assume that the BLM considers the Little Sandy as a riparian area and much of that is private. | A range of alternatives has been analyzed for authorized livestock use and Land Health Standards in Chapter 2.2.6 management action 6404. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland | #539-11 | Further, in conversations with our range conservationists, we have come to believe that the elk and deer degrade that water stream far harder than livestock, especially in the winter months. We request that the BLM show us proof of this declaration. If it cannot do so, we request that this be removed from the plan. Further, even if for some reason this were true, the punishment for failing to meet rangeland health standards under this provision is arbitrary and capricious because this punishment does not match the congressional intent of PRIA and the TGA. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for authorized livestock use and Land Health Standards in Chapter 2.2.6 management action 6404. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Resources (4300-4303) | | | |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #9721-7 | The statement requiring photo point monitoring for all channel crossings and all surface disturbances greater than½ acre limits the use of best available technology or most appropriate monitoring methods to track and monitor rangelands. Monitoring programs are to be developed to accurately capture and record trends in relation to desired goals and objectives. Photo point monitoring is a good and appropriate method for monitoring some attributes of rangelands but, should not be considered the only method due to development of future monitoring protocols or management objectives. You should restate this requirement to state the BLM encourages the utilization of photo point monitoring, but other methods may be considered. | A range of alternatives has been analyzed for photo point monitoring in Chapter 2.2.6 management action 1109. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13064-5 | Alternative B would also prohibit livestock grazing in wetland and riparian areas that are not meeting proper functioning condition.29 Further, Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing."30 This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing."31 There is no evidence in the draft Rock Springs RMP that supports an increase of three growing seasons for resting treated areas from livestock grazing. This could significantly impact the allotment areas ranchers may graze their livestock within the Rock Springs planning area. | A range of alternatives has been analyzed for livestock grazing and riparian areas in Chapter 2.2.6 management action 6414. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13219-2 | Further, Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing." This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing." There is no evidence in the draft Rock Springs RMP that supports an increase of three growing seasons for resting treated areas from livestock grazing. This could significantly impact the allotment areas ranchers may graze their livestock within the Rock Springs planning area. | A range of alternatives has been analyzed for resting treated areas from livestock grazing in Chapter 2.2.6 management action 4111. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13287-25 | While we appreciate the RMP direction in Alternative B that riparian areas should be managed to achieve Properly Functioning Condition, should achieve this within 5 years, and be managed for late-successional vegetation (DEIS at 2-61), these are aspirational statements and may not provide the concrete, measurable direction that is required to meet the objectives expressed. The Green River RMP required management for PFC, and achievement of this standard within 10 years across 75% of riparian areas, but 25 years later this not only has never happened, but riparian areas are in uniformly bad shape. If BLM range managers were unable to achieve a 75% benchmark in 10 years (see Alternative A, id.), it seems unlikely that the same range managers would be able to achieve 100% compliance within 5 years, absent some more concrete, measurable benchmarking standards incorporated in the plan | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13287-26 | The direction for riparian areas under Alternative D is a violation of BLM regulations, because it requires lands to meet or move toward meeting Land Health standards within 10 years; if lands are not currently meeting or moving toward these standards, then corrective action must be taken prior to "the start of the next grazing year" (not within 10 years), under federal regulations. 43 CFR § 4180. | See Chapter 1.4 Planning Criteria for compliance with applicable laws and regulations. A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13300-2 | Alternative B would also prohibit livestock grazing in wetland and riparian areas that are not meeting proper functioning condition. Further, Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing." This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing." There is no evidence in the draft Rock Springs RMP that supports an increase of three growing seasons for resting treated areas from livestock grazing. | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300, and for resting of treated areas in management action 4111. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13549-1 | One such concern is 6414 page 2-123 that states "prohibit livestock grazing in riparian areas that are not meeting PFC" According to the Riparian Area Management book issued by the NRCS, U.S. Department of Interior, and U.S. Department of Agriculture in the Introduction on page 1 states: 1) "PFC is also an appropriate starting point for determining and prioritizing the type and location of quantitative inventory or monitoring necessary. 2) Also in Appendix E on page 105 states "PFC isn't the sole methodology for assessing the riparian-wetland area". 3) "PFC isn't desired condition. It is a pre-requisite to achieving desired condition. Therefore: to obtain a complete picture of the riparian-wetland area health, including the biological side, one must have information on both physical status, provided through the PFC assessment and biological habitat quality. Neither will provide a complete picture when analyzed in isolation. In most cases, proper functioning condition will be a pre-requisite to achieve and maintaining habitat quality". "PFC isn't designed to be a long-term monitoring tool, but it maybe an appropriate part of a well-designed monitoring program". | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13549-2 | According to this book PFC has an important role but not a solitary role in range monitoring nor determination. In the RMP on 4300 page 2-61 according to proposed alternative B while everyone wants the range to meet PFC and have a desired condition having PFC be the only monitoring data and placing a time-line of 5 or 10 years is not site-specific. Each area has its own issues and needs to be monitored not only with PFC but other site-specific methods of collecting data. The reduction of AUMs based solely on PFC 4300 page 2-61 is not following the monitoring book explained earlier. | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13549-5 | The second issue with this same section is putting a percentage rate on reduction of AUMs. Again some sites need more time to rest and others need less. To set a specific reduction and time reduction does not work for all areas. This needs to be determined by a management team on a site-by-site basis. | A range of alternatives for livestock use has been analyzed in Chapter 2.2.6 management action 6404. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13624-99 | Ch. 3#3-5#3.5.2#Riparian. Addition of WOTUS and Non-WOTUS permitting requirements.#The RMP is lacking necessary permitting information for WOTUS and Non-WOTUS wetlands. This information should include: 1) The U.S. Army Corps of Engineers determines whether any of the listed wetlands are waters of the United States (WOTUS). 2) For wetlands that are determined to be WOTUS, any discharges of dredged or fill material to those wetlands would need to be covered under a 401 water quality certification issued by the WDEQ and a 404 dredge and fill permit from the U.S. Army Corps of Engineers. Information on the 401 certification process can be found at https://deq.wyoming.gov/water- quality/watershed-protection/cwa-section- 401-turbidity-wetland/401-water-quality-certification/. 3) For wetlands that are determined to be non- WOTUS, discharges of dredged or fill material to those wetlands would fall under state regulation. Discharges of dredged or fill material that results in the permanent loss of less than or equal to one cumulative acre of non-WOTUS wetlands, are permitted by rule in accordance with Wyoming Water Quality Rules, Chapter 2, Section 7(f). Discharges of dredged or fill material that results in the permanent loss of more than one cumulative acre of non- WOTUS wetlands require mitigation pursuant[...]to Wyoming Water Quality Rules, Chapter 2, Section 7(a). Chapter 4. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.1 Cooperating Agencies for discussion of Cooperating Agencies, and Chapter 5.1.2 Coordination and Consistency for discussion of other agency involvement. Determination of WOTUS and Non-WOTUS waters is beyond the scope of this document. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13691-5 | DCFB believes that if an entity such as the RSFO or any other publicly owned entity is in active pursuit of any type of acreage, then that process is counter to growth in the surrounding areas. If acreage were to be made available and no other interested private individuals or entities are available for such a purpose, then a public entity may make offer(s) for such purposes. | See Appendix K - Land Tenure Adjustment Criteria for discussion of criteria for retention, acquisition, or disposal of BLM managed lands. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13748-7 | MA# 4300-4303, Alternative D: "Manage all riparian/wetland areas and streams to meet or make significant progress toward meeting Wyoming's Land Health Standards. Give priority to those areas that are functioning at risk with a downward trend or in non-functioning condition. All riparian areas not meeting or making significant progress toward meeting the Wyoming Land Health Standards should, within 10 years, have activity or other management plans in various states of implementation that would allow riparian objectives to achieve, or make significant progress toward achieving, the Wyoming Land Health Standards." Rationale: Alternative D sets forth reasonable actions for riparian areas to meet Land Health Standards. Alternative B requires the BLM to have, within five years, management plans for all riparian areas in various states of implementation that would allow riparian areas to achieve these objectives. This is not a reasonable management action for the BLM. | A range of alternatives has been analyzed for riparian and wetland resources in Chapter 2.2.6 management action 4300-4303. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13784-21 | MA#4300, Alt B: "Achieve PFC and/or maintained as a minimum standard on all riparian and wetland areas. All riparian areas should, within five years, have activity or other management plans in various states of implementation..." (p.2-61) Comment: Achieving Proper Functioning Condition (PFC) is not a standard under the Wyoming Land Health Standards. The DEIS has interchanged or intermixed PFC and Standards. PFC is a methodology used to assess riparian areas, but is not based entirely on quantitative data. PFC should inform the Standard for riparian areas as part of a Standards Determination. | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13784-39 | MA#7414, Alt B: "Consider livestock water developments only if wildlife habitat and resource conditions would be improved or maintained." Comment: Narrowing all range improvement projects to only focus on wildlife habitat does not meet the intent of numerous other reasons for the projects. For example, if the concern is to address a stream segment in Functioning At Risk category under PFC, Alternative B will prohibit the water development and directly conflict with MA#4300. | A range of alternatives has been analyzed for livestock water developments in Chapter 2.2.6 management action 7414, and for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13785-17 | Riparian 289 3.5.2 "economic values which stem from use in livestock production, forest management, and mineral extraction." "...economic values which stem from use in agricultural commodity production, forest management, and mineral extraction." | Description of economic values is adequate for the description of affected environment. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13785-18 | Riparian 289 3.5.2 "...located on the lands adjacent to surface waters" "...located on the lands adjacent to and supplied water by the surface waters of the state of Wyoming..." | Description is adequate for the description of affected environment. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13821-7 | Our primary concern with MA 6414 lies in the prohibition of livestock grazing within riparian areas if they do not meet Proper Functioning Condition (PFC) criteria. It is crucial to emphasize that riparian areas are dynamic ecosystems that can recover and thrive under proper grazing management practices. The outright prohibition in the preferred alternative (B) may not take into account the positive contributions of well-managed livestock grazing to riparian health. Our concern is that; in allotments that contain long watersheds or large riparian areas significant costly structural range improvements would need to be constructed to limit livestock access. These large structural improvements have the potential to fragment large and small game habitat, in addition to providing a nesting perch for raptors in core sage grouse areas. Initially, these improvements might not be warranted if other management changes (i.e. changes in timing of use, duration of use, grazing management system ) are deemed appropriate to facilitate recovery of PFC. In addition, Swanson et. al. (2015) suggests that proper grazing management has the benefit of facilitating recovery within the riparian zone.3 In contrast, we would like to highlight that the Management Action (MA) in Alternative D of the Draft RMP, does not include a similar action to prohibit grazing in riparian areas solely based on PFC criteria. Alternative D provides a more balanced approach that acknowledges the dynamic nature of riparian ecosystems and the potential benefits of well-managed grazing to their health. | A range of alternatives has been analyzed for livestock grazing and riparian areas in Chapter 2.2.6 management action 6414. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13865-15 | D. MA #4213 Despite the contradiction in the forgoing paragraph, MA #4213, which prohibits vehicle and hand application of chemicals within ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status plants, would severely limit PacifiCorp's ability to perform IVM on its ROWs. IVM utilizing mechanical, biological, and chemical treatments is a critical component of vegetation maintenance that selectively targets invasive species of plants, as well as other non-desirable vegetation. Alternative B would place large restrictions on the areas in which herbicide treatments can be used as an effective tool. Alternatives A (preferred), C, or D of MA #4213 will allow PacifiCorp to continue its current IVM plan to target invasive plant species with the application of herbicides according to their label. Herbicides have been safely used by PacifiCorp near wetland and riparian areas with the BLM's approval for many years. Because PacifiCorp has numerous linear utility corridors, power lines inevitably cross streams and riparian areas, and existing ROW and special use permits issued by BLM may require weed control. Consequently, restrictions on the use of chemicals under Alternative B of MA #4207 and #4213, and the wide buffers under Alternative B of MA #4213 reduce PacifiCorp's options for effective treatments of noxious or invasive plant species. Likewise, the prohibition of chemical weed control within a ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status species, as identified in Alternative B of MA #4213, could jeopardize BCC's compliance with existing permit, lease, or regulatory requirements, as described previously. Alternatives A (preferred), C, or D of MA #4213 provide more flexibility for PacifiCorp to use the appropriate and most effective method of control (biological, mechanical, or chemical), while also including reasonable buffers around aquatic features. Reclamation of decommissioned mine areas, roads, or utility corridors includes relatively large areas that have had significant soil disturbance, and typically have numerous invasive plant species. For effective reclamation, it is best to have every tool to prevent those species from becoming established, particularly in the early stages of reclamation. Removing chemical treatment from the options would reduce the effectiveness of reclamation and have a lasting negative effect on the soils, vegetation, and subsequent hydrology of reclaimed sites. 5. Wildlife and Fisheries Habitat Several of the management actions in this section of the DEIS conflict with permits or guidance issued by the U.S. Fish and Wildlife Service (USFWS) under the Migratory Bird Treaty Act (MBTA; 1918) and the Bald and Golden Eagle Protection Act (BGEPA; 1940) and overstep BLM's authority to manage habitat versus species. In addition, the management actions in this section should be consistent with the BLM's Biological Resources Goal # BR-21 which discusses accordance with these acts. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for application of chemicals in Chapter 2.2.6 management actions 4212 and 4213 and for BMPs and limits on control in action 4207. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland | #13904-3 | MA 4300 Alt B indicates that PFC is the single only measurement to meet Wyoming Land Health Standards #2. This is incorrect. Wording in Alt D is acceptable. Manage all riparian/wetland areas and streams to meet or make significant progress toward meeting the Wyoming s Land Health Standards. Give priority to those areas that are functioning at risk with a downward trend or in non functioning condition. All riparian areas not meeting or making significant progress toward meeting the Wyoming Land Health Standards should, within 10 years, have activity or | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Resources (4300-4303) | | other management plans in various states of implementation that would allow riparian objective to achieve, or make significant progress toward achieving, the Wyoming Land Health Standards. | |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #13916-4 | MA 4300 Alt B indicates that PFC is the single only measurement to meet Wyoming Land Health Standards #2. This is incorrect. Wording in Alt D is acceptable. Manage all riparian/wetland areas and streams to meet or make significant progress toward meeting the Wyoming s Land Health Standards. Give priority to those areas that are functioning at risk with a downward trend or in nonfunctioning condition. All riparian areas not meeting or making significant progress toward meeting the Wyoming Land Health Standards should, within 10 years, have activity or other management plans in various states of implementation that would allow riparian objective to achieve, or make significant progress toward achieving, the Wyoming Land Health Standards. | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 815 - Biological Resources–Riparian and Wetland Resources (4300-4303) | #14022-10 | MA#4300, PFC is a qualitative assessment and, in many cases, due to natural or manmade event the reach fluctuate in and out of "PFC" status. Due to the variability along stream reaches, SCCD does not recommend having PFC the minimum standard. SCCD suggests following the Wyoming Land Health Standards and working towards maintaining or improving riparian function utilizing trend monitoring methods as the best approach, as suggested in Alternative D. | A range of alternatives has been analyzed for riparian areas and PFC in Chapter 2.2.6 management action 4300. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #142-2 | Alternative B also closes off many existing roads and trails used for recreational activities that southwest Wyoming has grown to know and love. Several seasonal restrictions called out in MA #4427 are outdated and many of the areas have not been ground-truthed to ensure that these are actual habitats that provide crucial habitats to the various species rather than things like existing roads, pipelines, mines, etc. | Alternative B does not close designated roads and trails to recreational activities. A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436. Analysis of seasonal restrictions for each alternative is in Chapter 4.7. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #301-1 | Wildlife populations fluctuate, sometimes widely, in response to natural factors such as cycles in the abundance of prey bases or extremes in seasonal weather (e.g., severe winters). | A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436. Management of wildlife populations is the responsibility of the State, and is outside of the scope of this document. See Chapter 1.4 Planning Criteria. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #8686-2 | All the west, federal governments, state governments and private landowners have dedicated much of the past many years to preserving and stabilizing the sage grouse habitat, its' range and population. Your Plan B restricting or eliminating predator control will reverse any gains made for the sage grouse. Your Plan B also will help destroy the antelope and deer populations. They struggle enough with Wyoming's winters and if you eliminate predator control on lands under plan B, you are placing another nail in their coffin. | Analysis of all four alternatives for fish and wildlife species is found in section 4.7. Management for fish and wildlife are addressed for all alternatives in management actions 4400 - 4436. Management for predators is covered for all alternatives in the Invasive species and Pest Management Section, specifically management action 4211. Sage-grouse management is being analyzed separately and is outside the scope of this document, and is addressed in Section 2.2.5 Overview of Alternatives. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #9448-2 | All the west, federal governments, state governments and private landowners have dedicated much of the past many years to preserving and stabilizing the sage grouse habitat, its' range and population. Your Plan B restricting or eliminating predator control will reverse any gains made for the sage grouse. Your Plan B also will help destroy the antelope and deer populations. They struggle enough with Wyoming's winters and if you eliminate predator control on lands under plan B, you are placing another nail in their coffin. | Analysis of all four alternatives for fish and wildlife species is found in section 4.7. A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436. Management for predators is covered for all alternatives in the Invasive species and Pest Management Section, specifically management action 4211. Sage-grouse management is being analyzed separately and is outside the scope of this document, and is addressed in Section 2.2.5 Overview of Alternatives. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #9794-4 | Bighorn Sheep Page 3-8 states, "There currently are no bighorn sheep herd management areas in the planning area due to conflicts with domestic sheep grazing allotments (primarily disease transmission from domestic to wild sheep)." This statement is factually incorrect and prejudicial. Change it to: "The RSFO is outside of Wyoming Bighorn Sheep Management Areas as designated by Wyoming Statute § 11-19-604." | See updated text in Section 3.7.1. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #9794-5 | Appendix H Appendix H, page 6, refers to "mother" grizzly bears repeatedly. Replace with "grizzly sow." This section should also mention that grizzly bears are not known to inhabit the RSFO. | See updated text in Appendix H. page 6. Grizzly bear range extends into the RSFO planning area. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #10324-1 | In the draft EIS, Chronic Wasting Disease (CWD) is not mentioned, despite being one of the biggest threats to many of the large charismatic wildlife that inhabit the area. CWD is a prion disease, an untreatable, easy to spread, brain disease, that is found in ungulates such as white-tailed deer, mule deer, elk, and moose.1 As mentioned this disease is untreatable and affects many of the large game species that are iconic symbols of the West, and with the disease spreading, especially in states like Wyoming, it is important to consider how the impounding disease spread and management for CWD will be handled in the Rock Springs RMP. In 2017, DeVivo | Analysis related to disease transmission is outside the scope of this document, and outside of BLM jurisdiction. A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436. Analysis of seasonal restrictions for each alternative is in Chapter 4.7. |

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| | | and Kauffman et. Al explained that CWD is present in over 20% of Wyoming's mule deer population, and this is causing a significant population decline regionally throughout the state.2 This study also found that in addition to mortality from the prion disease itself, animals infected with the disease are more likely to be predated upon by mountain lions.2 Though CWD can only be transmitted to other ungulates that are susceptible to the disease currently, it should be noted that there has been research conducted that has found that the disease can survive and pass through the digestive system of carnivores, like mountain lions and coyotes, which could not only put these animals at risk at some point, but also can spread the disease even further than local ungulate herds | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #10324-2 | With the threat of CWD becoming more present in the area, there is a threat to the wildlife in the area, and this should be addressed not only for the wildlife in the area but also for the community. Hunting is a large part of the economy, and as noted in the draft EIS, the total high value for hunting in the area was $7,306,388, which is notably higher than any other recreation consumer surplus value in 2016.5 When looking up things about Sweetwater County and Rock Springs, I found that many of the guides for the area brought up hunting as an activity that is popular in the area, and this is important as it is an activity that helps bring the community together, brings new people to the area, and brings in revenue both for the state but also for wildlife conservation through laws like the Pittman-Robertson Act. As CWD is a fatal disease that is easily transmissible, this puts entire herds of big game species at risk of dying out, which would severely impact the culture of the area and the economy. | Analysis related to disease transition is outside the scope of this document, and outside of BLM jurisdiction. A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436. Analysis of seasonal restrictions for each alternative is in Chapter 4.7. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #10324-4 | A recent study estimated that there are about ten bat mortalities per wind turbine per year, which may sound like a very small number, but when you consider the amount of wind turbines in Wyoming, that is not an insignificant number.12 It was a fantastic start to discuss what precautions would be made to prevent raptor and wind turbine collisions, but it is important to protect our less charismatic species like bats in this area as well. Bats are incredibly unique species and are often misunderstood by the public, which can be a reason why people have not been concerned about the bats in the area thus far. However, bats are critical for the habitats they live in and provide incredible benefits to humans, and with bats facing risks in addition to wind turbines like White Nose Syndrome, the urgency to protect these species is increasing. One of the incredible services that bats provide to the humans in the area is the consumption of insects, including pest insects | A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436, and for special status wildlife species in actions 4600-4624. Analysis of seasonal restrictions for each alternative is in Chapter 4.7. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #10324-5 | Bats can use man-made structures to hibernate like bridges, so I think it is important to consider how building new infrastructure, like bridges, could impact the transmission of WNS. Because there are a lot of passionate people about bats in Wyoming and a lot of research being done, there is A Strategic Plan for White-nose Syndrome in Wyoming, which would be a great resource when considering adding a plan for WNS into the RMP.18 White-nose Syndrome is an imposing threat to the entirety of the migratory bat species that live in or migrate through the Rock Springs area, so it is important that the area is prepared and takes preventative measures where they can. I suggest that any new infrastructure projects that could have the potential to have bats roost in them should be evaluated in relation to WNS, and discussion with scientists should be had to determine if there are risks associated/precautions that can be taken in order to minimize the risk of a WNS outbreak in the area. | Analysis related to disease transition is outside the scope of this document, and outside of BLM jurisdiction. A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436, and for special status species in 4600-4624. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #10324-6 | Within the RMP there was mention of pesticides in regards to water and water quality, however there was no mention of how pesticides affect wildlife and how they will be applied responsibly in the area. I think it is important to include information on how pesticides will be used as some of them harm insect and therefore predator populations, so including a note about appropriately managing pesticide use for wildlife would be important. It is known that pesticide use has increased over the past 50 years, with this number only suggested to continue increasing, and this does not only pose a threat to wildlife, but also humans, and livestock.19 One of the main victims of being affected by pesticides are our bird populations, both raptors and non raptors. As mentioned before raptors are critical to the ecosystem in the area, and specifically rodenticide is a major threat to our scavenging raptors, including owls, hawks, eagles, and vultures. In a study with 149 dead birds, 42% of them had been killed by injecting animals that had been poisoned.20 | Pesticide use is analyzed for a range of alternatives in management actions 4200-4213, Invasive Species and Pest Management. Best Management Practices for Pesticide use are identified in Appendix A. Analysis for each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #10324-8 | Birds are not just the only animals being affected by pesticides, some of our state's most iconic wildlife is as well. A study conducted in Montana found that white-tailed deer who consumed pesticides were more likely to have developmental effects and a higher rate of disease later on in life.22 Unfortunately, that is just the start, the paper also found that birds and deer were susceptible to eye diseases, impaired immune systems, skin disorders, lymphatic disorders, and liver disease.22 As mentioned in the chronic wasting disease portion of my comment letter, Wyoming has a culture built upon our deer populations, and the effects of pesticides are now affecting these important species. | Pesticide use is analyzed for a range of alternatives in management actions 4200-4213, Invasive Species and Pest Management. Best Management Practices for Pesticide use are identified in Appendix A. Analysis for each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13210-2 | 2. The task force recognizes the economic, cultural, and biological value of healthy and abundant wildlife populations. Accordingly, the Rock Springs Field Office should implement management actions that support thriving and diverse wildlife populations and, where necessary, support the restoration of native habitat | A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436, and for special status wildlife species in actions 4600-4624. analysis of impacts for each of these alternatives is found in Chapter 4. |

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| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13287-1 | For example, wilderness inventories have identified lands with wilderness characteristics that do not qualify for protection solely because they are consolidated into 640-acre units, and which would fully qualify for wilderness (and Wilderness Study Area) protections if they were in consolidated federal ownership. A National Conservation Area proposed for the Red Desert (Attachment 1) includes checkerboard lands, whose management would be complicated by intermixed private lands and minerals. Sage grouse Priority Habitat Management Areas exist in checkerboard lands, and it is difficult to apply the full level of prescribed protections to these checkerboard portions due to fragmented land ownership patterns. Wildlife migration corridors cross the checkerboard, and their conservation is impeded by the presence of private inholdings. Alternative B considers providing public access to public lands across private property at the landowner's request (DEIS at 2-109); if access is to be granted only on a request basis, it should be at the public's request rather than the landowner's. | Management for Lands with Wilderness Characteristics has been analyzed in all alternatives in management actions 1500-1517. Analysis for each of the alternatives is found in Section 4.14. Management for wildlife migration corridors has been analyzed for all alternatives in Section 2.2.6 actions 4421, 4424, and 7555 - 7562. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13287-13 | A new analysis of potential wildlife overpass locations shows hotspots in the Point of Rocks area corresponding to the location where this migration would cross the Interstate; another hotspot is on State Highway 28 near South Pass. The BLM should include direction in its plan to cooperate with WYDOT to install wildlife overpasses of the type currently in place at the Trappers Point bottleneck on the Path of the Pronghorn in these areas, and protect the landings on either side such that the use of these overpasses is not impeded by development. The Tolar viewshed protections included elsewhere in Alternative B (DEIS at 2-92) should be helpful in providing this protection. | Analysis of specific projects is outside of the scope of this document. See Section 1.4 Planning Criteria for a list of the criteria identified. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13287-27 | For animal damage management activities, while we recognize the expansion of "restricted control area" status from the Jack Morrow Hills CAP area to the entire Field Office (DEIS at 2-60), an additional restriction that should be added is to specify that animal damage management is limited to non-native species. The provision that such activities would be allowed under the Preferred Alternative "only if it would benefit Special Status Species or is needed for valid safety concerns" (DEIS at 2-65) approaches this level of specificity but may yet be prone to abuse through discretionary stretching of justification rationales. We have seen this too often to be complacent that it would not occur despite plan direction. Thus, the prohibition on "control" of native species must be watertight and explicit, with the possible exception for cases where human life is immediately at risk. This latter caveat is unlikely ever to be triggered in the Rock Springs Field Office, which lacks animals that pose a significant threat to human life. | A range of alternatives has been analyzed for invasive species and pest management specific to control areas for animal control, in management action 4211. Predator Management required design features are described in Appendix F. Analysis of impacts of each of these alternatives is found in chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13287-28 | We appreciate that the Preferred Alternative provides that livestock grazing will be excluded from large mammal parturition habitats, usually May 1 through June 30. DEIS at 2-68. This exclusion should be extended to begin on March 15th such that the new growth of grass on these habitats will not be substantially depleted prior to the arrival of fawning/calving wildlife. | A range of alternatives has been analyzed for management of big game parturition in Chapter 2.2.6 management action 4420. Analysis of impacts of each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13287-29 | Exclosures should be implemented (See DEIS at 2-65), not only in riparian areas but also in uplands, and a primary purpose of these exclosures should be to (1) provide a baseline for comparison that allows forage utilization by livestock to be accurately assessed, and (2) to provide reference conditions for vegetation composition that would occur in the absence of livestock and/or with rest from livestock. These exclosures need not be constructed to exclude native herbivores, and should use wildlife-friendly fencing methods. It is common sense that all livestock exclosures be closed to livestock grazing (DEIS at 2-120, Alt. B); it is nonsensical to establish an exclosure and then not exclude livestock. | A range of alternatives has been analyzed for management of special management and riparian management exclosures in Chapter 2.2.6 management actions 4411 and 6407. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13310-1 | I would like to urge protection for the Big Sandy Foothills as an intact ecosystem to continue to support the highest concentrations of sage grouse in the world, a significant portion of the longest mule deer migration corridor in the world and critical big game winter range and calving grounds. | Analysis for management of Greater Sage-grouse is outside the scope of this document, see Chapter 1.3 for explanation. Analysis for big game and other wildlife for all alternatives can be found in Chapter 2.2.6, actions 4400-4436. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13330-4 | * MA # 4406: Sweetwater County Farm Bureau prefers Alternative C. The other alternatives acquisition of additional lands along perennial waters and wetlands may specifically target existing home ranches and lands currently in agriculture production with an end result of reducing local ag and likely putting family ranches out of business with reduced access and loss of historical agriculture and multiple use lands. | A range of alternatives has been analyzed for aquatic, wetland and riparian disposal and acquisition in Chapter 2.2.6 management action 4406. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13330-5 | Sweetwater County Farm Bureau prefers Alternative C. Allowing "animal damage control on BLM lands only if it would benefit Special Status Species" is an irresponsible plan that directly discriminates against agriculture and multiple use. Depredation makes a significant impact on both wildlife population and livestock production and even one season of focusing only on "special status species" could decimate local wildlife and wipe out a producer's annual crop or entire herd. | A range of alternatives has been analyzed for animal damage control activities in Chapter 2.2.6 management action 4412. |

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| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13330-7 | * MA # 4420: Sweetwater County Farm Bureau does not prefer any of the Alternatives, but Alternative D seems most favorable to keeping historical AUM grazing rights. Sweetwater County Farm Bureau is opposed to the prohibition of livestock grazing in the big game parturition habitat from May 1 to June 30. (page 2-68). The delayed turnout of cattle from May 1st to July 1st would force producers to keep their cows on hay fields and their private property during peak hay growing season. This places an enormous financial burden on livestock operations due to the extra two months of required feeding. Hay producers would also lose their first cutting of hay. This would change the historical dynamic of the agricultural industry in the area. This blatantly violates the grazing rights by not honoring the agreement with each individual permittee. | A range of alternatives has been analyzed for management of big game parturition in Chapter 2.2.6 management action 4420. Analysis of impacts of each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13330-8 | * MA # 4430: Sweetwater County Farm Bureau prefers alternative A. The least adequate is alternative B to "prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds." This is excessive restriction of multiple use. Including "historical" raptor nests is especially ambiguous and sets a dangerous precedent to restrict access of a changed habitat with no current proof of viability. Alternative B is grasping at straws to restrict access on inaccurate (old) data incongruent with the science of present-day raptor sites. | A range of alternatives has been analyzed for raptor nesting protections in Chapter 2.2.6 management action 4430. Analysis of impacts of each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13412-2 | The Red Desert to Hoback migration corridor spans 150 miles and crosses private land, state trust land, United States National Forest land, and public land managed by the BLM. This migration corridor is the longest known mule deer migration corridor in the United States and is traveled by approximately 5,000 deer biannually. Alternative B would designate a new ACEC called the Big Game Migration Corridor ACEC. This ACEC would contain significant portions of the Red Desert to Hoback migration corridor. As I am following the the Select Committee on Federal Natural Resource Management (Committee) of the Wyoming Legislature, the Committee heard testimony from Wyoming's Game and Fish Department at our meeting on October 6, 2023 that Alternative B's inclusion of the Red Desert to Hoback migration corridor within the ACEC would be detrimental to the Wyoming Game and Fish Department's management of wildlife populations within the migration corridor. I support the hard work the Wyoming Game and Fish Department has put into migration corridors. I am committed to conserving these vital migration corridors to help maintain wildlife populations. I believe that designating migration corridors within ACEC is not in the best interest of the state or the wildlife. | A range of alternatives has been analyzed for the Big Game Migration Corridor ACEC in chapter 2.2.6 management actions 7555 - 7562. Analysis of the actions in each alternative is found in Chapter 4.21. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13480-1 | Furthermore, I would like to emphasize the importance of including updated language in the plan to address the mule deer migration corridor. It is crucial that strong management prescriptions are adopted to ensure the preservation of the corridor's permeability. I strongly urge the BLM to review the latest scientific data collected, cataloged, reviewed, and evaluated by the University of Wyoming's team. In particular, the 2020 peer-reviewed study conducted by Sawyer et al. provides valuable insights, highlighting a 3% threshold level for migratory disturbance. Given that this study was conducted within the deer herd that utilizes lands administered by the Rock Springs Field Office of the BLM, I believe it serves as a credible scientific basis for developing case-by-case management prescriptions in the most critical habitats. | A range of alternatives has been analyzed for the Big Game Migration Corridor ACEC in chapter 2.2.6 management actions 7555 - 7562. Analysis of the actions in each alternative is found in Chapter 4.21. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13515-7 | As a long-term partner in BLM lands/realty work, RMEF supports continued use of land acquisitions and conservation easements to conserve critical habitat for big game and other wildlife. BLM-managed lands across the planning area include several landlocked parcels and/or a checkerboard arrangement. RMEF supports Plan components recognizing that acquisition or land tenure adjustments should focus on consolidating land ownership, improving public access, and conserving/enhancing resources. | A range of alternatives have been analyzed for land tenure adjustments, acquisitions and disposals in management actions 60000-6015. Assumptions and analysis of impacts of these actions is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13549-6 | In section 4408 page 2-64 states in proposed Plan B that water developments only if wildlife habitat and resource conditions would be improved. Now wildlife certainly is important the BLM is a multi-use organization and needs to consider all animals. When ranchers put in a new water development this helps out the wildlife in many aspects not only providing them with water but also distributing the animals across the landscape so not to overgraze one area to give more feed for all animals throughout. To say it is good for wildlife is to only look at one part of the whole picture. | A range of alternatives have been analyzed for water developments in Chapter 2, management action 4408. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13574-2 | MA #4428 Alternatives B, C, and D contain references to Appendix J which prescribes distances. These alternatives contain acceptable language but the references to Appendix J makes them unacceptable. In some cases, the distances listed in the alternative exceeds US Fish & Wildlife Service (USFWS) recommended distances. Since USFWS has primary jurisdiction over raptor nests, eggs, and young, USFWS recommended distances should be used. An acceptable alternative should reference USFWS recommended distances and allow case-by-case determination of distances based on species, topography, line of sight distances and additional protective measures to be worked out in consultation with USFWS, WGFD, and BLM. | A range of alternatives have been analyzed for raptor nest protections in Chapter 2, management action 4428. Analysis of the impacts of these actions for each alternative is found in Chapter 4. Appendix J contains Seasonal Raptor restrictions. |
| 816 - Biological Resources–Fish and | #13624-109 | Appendix H#H-22#H.4#Physical Resources.#This section should be updated to be consistent with the comments provided above. BLM should add the agencies that have authority to ensure the language does not indicate BLM as the regulatory agency. | See Appendix H for updated text. See Chapter 1.4 Planning Criteria for compliance with laws and authorities. |

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| Wildlife (4400-4436) | | | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13668-3 | Management # 7421 Page 2-178 …Prohibit surface disturbing activities, except for activities intended to protect or enhance ACEC values. I would prefer a different alternative than B that will not prohibit surface disturbing activities, such as drilling a well and limiting the kind of fence that one would be allowed to use. Areas of our allotment that would be VRM 2 on the top of Mellor Mtn. and the Sage Creek pasture may, in the future need solar panels or some other means to supply water to a well for not only our livestock, but for all species who currently drink, and limiting that due to "visibility" does not seem logical nor humane; to say nothing of achieving and maintaining rangeland health. Wells can address livestock distribution in addition to the distribution of other species. Lastly, if only electric fences are allowed, then what do we do about the sage grouse running into it? A well-thought out alternative that takes into consideration the whole picture and all apparent factors would be a sensible approach. | A range of alternatives has been analyzed for ACECs in management actions 7400-7570. A range of alternatives specific to surface-disturbing activities has been analyzed in action 7421. Analysis of impacts for the actions in these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13720-5 | Biological Resources (BR) - Fish and Wildlife Goals and Objectives (U.S. Department of the Interior Bureau of Land Management, 2023)(Page 2-62) We respectfully request that BLM adds goals and objectives between BR-18 and BR-19 that read: "Identify connectivity habitat based on the known movements of individuals." "Delineate potentially important connectivity areas, termed 'ecological corridors' that are necessary to enhance the integrity, viability and stability of protected areas." | BLM coordinates and cooperates with WGFD to track movements and identifies connectivity. See Chapter 1.4 Planning Criteria regarding BLM/WGFD coordination. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13720-12 | 4.7 WILDLIFE AND FISHERIES (U.S. Department of the Interior Bureau of Land Management, 2023) (Page 4-53) 4.7.1 Assumptions In this section, BLM states assumptions that will be applied to all wildlife and fisheries management in the Rock Springs resource area. We believe that additional assumptions should be added, based on the most recent science and best management practices: We respectfully request that BLM adds this assumption: "Conservation of species, ecosystems and habitats can only be achieved if protected areas are functionally connected." We respectfully request that BLM edits the first bullet point in this section to add the language we identify here in italics that read: "The quality and quantity of winter ranges, which are core habitats that are functionally connected by ecological corridors are generally considered to be the limiting factors on big game populations in the planning area. The ability of big game to access core habitats that support wintering populations is a major factor in determining yearlong population levels." We respectfully request that BLM edits the third bullet point to add the language we identify here in italics that read: "wildlife migration corridors, stopover areas, migration bottlenecks, crucial winter ranges, transitional ranges, and parturition areas are critically important wildlife habitats. Together, they form an ecological network which is established, restored, and maintained to conserve biological diversity." | The assumptions in 4.7.1 were used for the completed analysis. For BLM's goals for fish and wildlife management, see Chapter 2 Goals and Objectives BR-16 through BR-26. Also, see Executive Summary and Chapter 4.7 adequacy of data, assumptions and analysis. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13720-13 | 4.7.3 Alternative B The discussion of impacts to wildlife and fisheries in Alternative B is similar to those for Alternative A, which we discuss here. The DRMP DEIS at page 4-56 states that, "The WGFD estimates that 170 acres surrounding each well pad is the minimum area in which impacts on pronghorn (Antilocarpa americana) would occur (WGFD 2004b). The greater mobility and adaptability of this species to human activity and disturbed areas likely would prevent long-term population impacts…" There is no citation in the Literature Cited for this "WGFD 2004b" report, which makes its accuracy and reliability questionable. Further, the most current and best available science disputes the DRMP DEIS statement that, "adaptability of this species to human activity and disturbed areas likely would prevent long-term population impacts…" On the contrary, Sawyer et al documented behavioral response to human activity and energy development site disturbance. In a 15-year study using 171 collared pronghorns, "distance from natural gas well pads increased through time and was concurrent with declines in winter residency." (Sawyer, 2019) Pronghorns increased individual well pad avoidance to a quarter-mile, and overall well pad avoidance by half a mile. Pronghorns spent one month less time in natural gas fields. More than half of the pronghorn population simply left what had been their traditional winter ranges. Considering that the Sublette pronghorn population has declined by 30% since 2007, (see Table 1 below) and the winter of 2022-2023 resulted in the loss of 75% of the Sublette pronghorn herd, (Tan, 2023) we can no longer depend on their "adaptability" to activities that are managed by BLM on public land. This outdated, anachronistic misconception is no longer valid in 2024, and in fact exacerbates negative "long-term population impacts." Along with habitat fragmentation and degradation from natural gas development, BLM land managers must also consider the impacts of a 24-year drought and the increasing shocks to essential habitats resulting from climate change. We respectfully request that the BLM provides the source for the cited "WGFD 2004b" report. We respectfully request that the statement at page 4-56 be deleted that states, "The greater mobility and adaptability of this species to human activity and disturbed areas likely would prevent long-term population impacts…" We respectfully request that the DEIS at page 4-56, third paragraph be edited to include the sentence we identify here in italics, "Documented behavioral response to energy development includes avoidance of natural gas well pads and declines in winter residency of traditional winter ranges." | See Literature Cited for updated Citation. See Executive Summary and Chapter 4.7.1 for adequacy of assumptions, data and analysis. |
| 816 - Biological | #13748-8 | MA# 4411, Alternative D: "Allow development and/or maintenance of special management and riparian management exclosures, subject to adequate mitigation of impacts following BLM mitigation policies. Review | A range of alternatives has been analyzed for management of special management and riparian management exclosures in Chapter 2.2.6 management actions 4411 . |

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| Resources–Fish and Wildlife (4400-4436) | | existing exclosures, and if they are providing intended function, create and implement exclosure plans. If they are not providing intended function, determine if changes can be made, or if they should be removed." Rationale: Alternative D provides for critical site-specific determination for existing exclosures while also providing flexibility to build new structures as needed. Alternative B is too vague and lacks clear management direction. | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13752-7 | The vehicle travel restrictions that would be imposed by Proposed Management Action 4427 are overly restrictive and at a minimum should provide exceptions for electric infrastructure access. Year-round access is needed to electric power lines and wind energy projects for routine operations and maintenance work and any emergency repairs. The preferred alternative fails to provide an exception for access needed to repair and maintain existing infrastructure. | A range of alternatives has been analyzed for management of seasonal vehicular travel restrictions in wildlife habitats in action 4427. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13755-6 | BLM proposes to close all "big game crucial winter ranges, parturition areas, migration corridors, and transitional habitats" to surface disturbance or disruptive activities. Draft RMP, Table 2-1 , at 2-68 (MA# 4421). As shown in Map 3-3, almost all of the KSLA is in pronghorn crucial winter or yearlong range.2 In assessing visual impacts of mineral development, BLM makes no attempt to distinguish between underground trona mining and mineral extractive industries that are far more visible and disruptive of surface resources. See Draft EIS at If Alternative B is implemented, trona operators will be unable to access the surface necessary for vital mining support facilities, making this area of the KSLA essentially useless for purposes of trona mining. BLM fails to analyze the impacts to the trona industry of such a drastic restriction across the KSLA. Moreover, such a draconian restriction makes no exception for minimal or seasonal uses, especially in areas that are already frequented by regular traffic from other activities. BLM fails to explain why existing seasonal restrictions are suddenly inadequate to manage pronghorn and other species across the planning area. | See Glossary for a definition of 'surface disturbing activities'. A range of alternatives has been analyzed for management of surface disturbing and disruptive activities in wildlife habitats in Chapter 2.2.6 management action 4421. Analysis of the impacts of the actions in these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13755-7 | Further, blanket prohibitions on surface use in wildlife habitat is at odds with Wyoming Game and Fish Department management planning. In matters of wildlife management, the federal government must yield to the jurisdiction of the state.3 Here, Wyoming has applied conservative approaches to managing big game throughout the State and within the Rock Springs planning area, including seasonal restrictions. For instance, the Wyoming Game and Fish's Recommendations for Development of Oil and Gas Resources Within Important Wildlife Habitat, Version 6.0, Table 1 (Apr. 2010), recommends seasonal closures, rather than wholesale exclusion areas, in crucial big game habitat. BLM's proposal to override the State's balanced wildlife management scheme is contrary to multiple use management and the federal government's FLPMA obligation to follow the State's lead on wildlife protection. | A range of alternatives has been analyzed for management of surface disturbing and disruptive activities in wildlife habitats in Chapter 2.2.6 management action 4421. Analysis of the impacts of the actions in these alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria that identifies BLM's cooperation and coordination with WGFD. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13755-10 | The court in Defenders of Wildlife v. Andrus, 627 F.2d 1238, 1248 (D.C. Cir. 1980), explained that in enacting FLPMA, Congress "carefully and explicitly" "assigned the states the primary responsibility of management of wildlife programs within their boundaries." Id. ("It is unquestioned that 'the States have broad trustee and police powers over wild animals within their jurisdictions.'" (quoting Kleppe v. New Mexico, 426 U.S. 529,545 (1976)). While Congress may preempt state prerogatives on federal lands via the Property Clause, it elected not to do so when it drafted FLPMA. Id.; see U.S. Const., Art. IV, § 3, cl. 2. | See Chapter 1.4 Planning Criteria for compliance with Applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13783-18 | Wyoming possesses "unquestioned … 'broad trustee and police powers over wild animals[.]'" Andrus, 627 F.2d at 1248 (quoting Kleppe, 426 U.S. at 545). BLM's decision to abandon Wyoming's multiple-use plan to forbid all surface disturbing activity contravenes the State's authority and violates principles of multiple use. | See Chapter 1.4 Planning Criteria for compliance with Applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-22 | MA#4408, Alt B: "Consider water developments only if wildlife habitat and resource conditions would be improved or maintained." Comment: Narrowing all range improvement projects to only focus on wildlife habitat does not meet the intent of numerous other reasons for the projects. For example, if the concern is to address a stream segment in Functioning At Risk category under PFC, Alternative B will prohibit the water development and directly conflict with MA#4300. | A range of alternatives has been analyzed for water developments in Chapter 2 management action 4408. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-23 | * MA#4412, Alt B: "Allow animal damage control on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns." Comment: Alternative B does not actually consider the correlation between the species being controlled and special status species. Pg 3-12 lists the special status species for mammals, avian fish, amphibians and reptiles in the project area. At best, the correlation between predatory species being controlled for animal damage may only be with pygmy rabbit and Greater sage-grouse. The Alternative B doesn't address the true need for animal damage control. | A range of alternatives has been analyzed for animal control in Chapter 2 management action 4412. Analysis of impacts for management in each of the alternatives is found in chapter 4. |
| 816 - Biological Resources–Fish and | #13784-24 | MA34418, Alt B: "Prohibit renewable energy projects in big game crucial winter range..." Comment: The Programmatic Solar EIS recently came out and WDA believes Alternative B and the current administration's priorities for increased renewable energy are in direct conflict. | A range of alternatives has been analyzed for renewable energy projects in big game crucial winter range in Chapter 2 management action 4418. Analysis of impacts from the actions in each alternative is found in chapter 4. |

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| Wildlife (4400-4436) | | | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-25 | * MA#4420, Alt B: "Prohibit livestock grazing in big game parturition habitat during the birthing season (usualy from May 1 through June 30)." Comment: Most BLM livestock grazing permits overlap with big game habitat and the dates indicated. For those livestock grazing permittees in the prohibited areas, this would likely cause significant economic impacts to their operations. Additionally, BLM must incorporate the Wyoming Land Health Standards to ensure livestock grazing is a significant causal factor for not providing adequate forage and habitat in the parturition areas. | A range of alternatives has been analyzed for livestock grazing in big game parturition in Chapter 2.2.6 management action 4420. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-26 | A#4427, Alt. B: "Seasonally close vehicular travel in important periods (big game crucial winter, parturition, calving, nesting areas" Comment: This alternative closes the mentioned areas for over 9 of the 12 months of the year. Of which, overlaps with most livestock grazing seasonal use periods and would prohibit livestock grazing permittees from maintaining range improvement projects, supplying salt and minerals, or other livestock grazing management tasks requiring motorized vehicles. | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2.2.6 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-27 | * MA#4430, Alt. B: "Prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds. This includes project components such as permanent and/or high profile structures..." Comment: The interpretation of Alternative B will undoubtedly prohibit livestock grazing permittees from installing windmills and solar panels for water developments. By not allowing livestock grazing permittees to install water developments due to raptor nests locations, permittees may not fully utilize the forage equitably across their allotments or potentially meet Wyoming Land Health Standards. | A range of alternatives has been analyzed for raptor protections in Chapter 2.2.6 management action 4430. Analysis of impacts from the actions in each of the alternatives is found in chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-53 | 4.7.3 Wildlife and Fisheries, Alternative B: "Resting lands from livestock grazing a minimum of five seasons after treatments would allow treated areas to revegetate, soils to stabilize and vegetation to mature to the point of withstanding livestock grazing pressure. Rested areas could provide wildlife with new vegetation for cover and forage without competition with livestock during the rest period." (p. 4-69) Comment: The statement and analysis are biased. If removal of livestock grazing for a period of five growing seasons is beneficial, why does wildlife grazing on the same treated areas not compromise the treatment's ability to mature? | A range of alternatives has been analyzed for resting treatment areas in Chapter 2 management action 4111. Analysis of the impacts from actions in each of the alternatives is found in Chapter 4 |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13784-54 | "Removal of fences reduces threats of injury or death from collisions or entanglement with fences, enhances migration corridors, and could allow access to additional forage and cover." Comment: There wasn't a specific management action pertaining to the removal of fences under Alternative B, Chapter 2.Fences are not a limiting factor with wildlife and forage. Remove the statement. | Text in Chapter 4 has been updated. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13787-55 | MA #4407 BR-20, BR-19 No similar action Maintain and improve habitat quantity and quality for migratory bird species of conservation concern to prevent, avoid, reduce, and/or mitigate adverse impacts to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities. Industry Position: Not acceptable Reason: Because habitat quantity and quality are undefined there is no way to measure or attain this goal. Maintain habitat quantity and quality for migratory bird species of conservation concern to avoid, reduce, or mitigate adverse impacts to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities. Industry Position: Not acceptable Reason: Because habitat quantity and quality are undefined there is no way to measure or attain this goal. Maintain or improve habitat quantity, functionality, and quality, on a case- by case basis, for migratory bird species of conservation concern consistent with regional or statewide bird conservation priorities. Require, on a case-by-case basis, pre- construction surveys by a qualified biologist for any project proposed to be implemented during the migratory bird nesting season, generally February 1 through August 31. If active/occupied nests are identified, construction activities in the immediate area will be halted, until it is determined that the nest is no longer active/occupied, due to events such as fledging, nest predation, or nest abandonment. Industry Position: Not acceptable Reason: Because habitat quantity and quality are undefined there is no way to measure or attain this goal. Improving habitat quantity and functionality and quality must not be required. BLM will ensure that actions follow MBTA, USFWS, and WGFD requirements. Protection of the habitat should be consistent with regional and statewide bird conservation priorities on a case-by-case basis. | A range of alternatives has been analyzed for migratory birds in Chapter 2, management action 4407. Analysis of impacts of actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for applicable laws and policies |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13787-56 | MA #4419 BR-41, BR-09, BR-26 To the extent possible, suitable wildlife habitat and forage would be provided to support the WGFD 1989 Strategic Plan objectives. Changes within WGFD planning objective levels would be considered based on habitat capability and availability and site- specific analysis. Industry Position: Acceptable Reason: Industry supports WGFD herd unit objectives and population plans. Manage wildlife habitat to provide forage to support the WGFD 2009 (or subsequent approved) Strategic Habitat Plan in the attainment of big game herd unit objectives, strategic population plans, and aquatic basin management plan objectives. Consider habitat capability and availability during coordination with WGFD for changes to plan objectives. Industry Position: Not acceptable Reason: Industry supports WGFD herd unit objectives and population plans but habitat capability and availability are subjective enough to lead to NSOs where appropriate mitigation would provide adequate habitat | A range of alternatives has been analyzed for wildlife habitat to support WGFD strategic plans in Chapter 2 management action 4419. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |

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| | | protection. Manage wildlife habitat, to the extent possible, to provide forage for all resources. Consider habitat capability and availability during coordination with WGFD for changes to plan objectives. Industry Position: Not acceptable Reason: Industry supports WGFD herd unit objectives and population plans but habitat capability and availability are subjective enough to lead to NSOs whereas appropriate mitigation would provide adequate habitat protection. Manage, to the extent possible, wildlife habitat to provide forage to support the WGFD Strategic Habitat Plan in the attainment of big game herd unit objectives, strategic population plans, and aquatic basin management plan objectives. Industry Position: Acceptable Reason: Alternative D uses the current WGFD Strategic Plan and captures the desired wildlife habitat result. Alternatives A and D are acceptable. | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13787-57 | MA #4426 BR-24, BR-18, BR-41 Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species. This would be accomplished through controlled timing and sequencing of federal coal leasing and development in these areas. For example, satisfactory abandonment and adequate reclamation of mined lands in big game crucial winter ranges and birthing areas would be required before additional federal coal leasing and development is initiated in the same crucial winter ranges and birthing areas. Industry position: Not acceptable Reason: A mining and reclamation schedule that allows for the orderly and environmentally sound development of the coal reserve is developed by the operator and reviewed and approved by WDEQ-LQD in the operator's mine permit. WDEQ-LQD has primacy, WGFD and BLM have consultation, and USOSMRE has oversight. Close big game crucial winger ranges and parturition areas to further consideration for federal coal leasing and development. Industry position: Not acceptable Reason: The need to protect big game crucial winter range and parturition areas is respected. To close these areas completely is overly restrictive. Allowance should be made for the orderly development of the coal resource through a mining and reclamation schedule reviewed and approved by WDEQ-LQD. Reclamation should be timely as the coal is mined and return the functionality of these habitats. Open big game crucial winter ranges and parturition areas for further consideration for coal leasing and development. Maintain a balance between coal leasing and development and maintaining adequate levels of these habitats. Prevent significant adverse impacts to these habitats. Open big game crucial winter ranges and parturition areas to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats. Prevent significant adverse impacts to important big game species through controlled timing and sequencing of federal coal leasing and development in these areas. Industry position: Not acceptable Reason: Most of this language is acceptable but "adverse" impacts is open to interpretation and open-ended. Same as Alternative A. Industry position: Not acceptable Reason: A mining and reclamation schedule that allows for the orderly and environmentally sound development of the coal reserve is developed by the operator and reviewed and approved by WDEQ-LQD in the operator's mine permit. WDEQ-LQD has primacy, WGFD and BLM have consultation, and USOSMRE has oversight. Open big game crucial winter ranges and parturition areas for further consideration for coal leasing and development. Maintain a balance between coal leasing and development and adequate crucial winter range and parturition area habitats by developing a reclamation schedule that will be reviewed and approved by WDEQ- LQD in consultation with WGFD and BLM. | A range of alternatives has been analyzed for big game crucial winter range in Chapter 2 management action 4426. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. See also Appendix E for applicable laws, including the Mineral Leasing Act. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13787-58 | MA #4427 BR-24, BR-41 Vehicular travel in crucial and important wildlife habitats and during crucial and important periods (strutting grounds, spawning beds, big game ranges, calving/fawning periods, etc.) would be restricted seasonally, as necessary. Industry position: Not acceptable Reason: The need for protective measures is accepted. Allowance should be made for determination of protective measures case by case that protect the wildlife resource and allow for access to surface facilities needed for trona production in the KSLA. Seasonally close vehicular travel in crucial and important wildlife habitats and during crucial and important periods (big game crucial winter ranges 11/15-4/30, deer parturition areas 5/1-6/30, elk calving areas 5/1-6/30, moose calving areas 5/1- 6/30, raptor nesting areas 2/1-7/31). See Appendix J. Industry position: Not acceptable Reason: This alternative applies the season and distance restrictions in Appendix J. Appendix J Alternative B has a 2-mile restriction on raptors. Two miles exceeds USFWS guidance. Limit vehicular travel to designated roads and trails in crucial and important wildlife habitats and during crucial and important periods (big game crucial winter ranges 11/15-4/30, deer parturition areas 5/1- 6/30, elk calving areas 5/1-6/30, moose calving areas 5/1-6/30, raptor nesting areas 2/1-7/31). Industry position: Not acceptable Reason: Limitation to "designated roads" potentially restricts access to surface facilities that are needed for trona production in the KSLA. Allowance is needed to develop protective measures case by case in consultation with USFWS and BLM. Seasonally close, on a case-by-case basis, vehicular travel in designated crucial winter ranges and parturition areas during key periods (big game crucial winter ranges 11/15-4/30, big game parturition areas 5/1- 6/30). Exceptions will be granted for administrative use. See Appendix J. Industry position: Not acceptable Reason: Appendix J Alternative D contains some distance restrictions that exceed USFWS guidance. Vehicular travel in crucial and important wildlife habitats and during crucial and important periods (strutting grounds, spawning beds, big game ranges, calving/fawning periods would be allowed to gain access to surface facilities needed for trona production in the KSLA, including rights of way for pipelines, powerlines, and roads. Protective measures needed for protection of said habitats and wildlife will be developed case by case in consultation with the USFWS, WGFD, and BLM. | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |

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| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13811-10 | Seasonal restrictions on construction may also significantly influence when and how the Dry Creek Project construction and maintenance are scheduled and performed and may influence operations if sensitive maintenance activities cannot be completed in a timely manner due to seasonal restrictions. In Pacific's view of the RMP/DEIS, it appears there is some internal inconsistency with respect to whether BLM would entertain waivers, exceptions, or modifications to the otherwise date-certain and area-certain seasonal restrictions. In Volume 2, Appendix B, Table B-1, BLM provides "criteria for considering request for exceptions, modifications, and waivers according to stipulations applied for the alternatives."25 In Table B-1, under Management # 4430 (Raptor Nest) BLM identifies in the Action Text that "[b]uffer recommendations could be modified on a site-specific or project-specific basis based on field observations and local conditions,"26 but BLM later states in the Stipulation Description that no exceptions, modifications, or waivers will be considered for raptor nests. Again, under Management # 4431 (Raptor Nest) the Stipulation Description states both, "No surface occupancy or disturbing activities within a two-mile radius during raptor seasonal restrictions (generally February 1 to August 15) unless the operator submits a plan that adequately addresses mitigation of impacts following BLM mitigation policy to raptor nests"27 and BLM suggests no exceptions, modifications, or waivers will be considered relative to raptor nest restrictions. Lastly, under Management # 4435 (Game Fish and Special Status Fish Populations during Spawning Season) the Action Text states, "Evaluate, on a case-by-case basis, requests for exceptions to timing limitations and consider reducing or increasing these standard dates."28 BLM then suggests in the Stipulation Description that no exceptions, modifications, or waivers will be considered for fisheries resources. BLM's conflicting statements makes it unclear how exactly they intend to manage these resources and whether the Dry Creek Project can be developed in alignment. | A range of alternatives has been analyzed for raptor protections in Chapter 2, 4428-4434. Analysis for actions in each of the alternatives is found in chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-14 | C. MA #4207 Alternative B of MA #4207 would restrict the control of noxious weeds and other invasive plant species to only mechanical or biological methods, thereby reducing the effectiveness of PacifiCorp's current IVM plan for controlling vegetation along power line ROWs. The use of only mechanical or biological treatments as prescribed by Alternative B may contribute to resource impacts resulting from repeated and prolonged treatments by vegetation management crews. Herbicide use can be more effective than mechanical or biological controls in reducing noxious weeds and non-desirable tree species, resulting in the need for less frequent treatments. Herbicide application requires a shorter duration of work and less noise compared to mechanical treatments and could thereby reduce disturbance impacts to wildlife in certain situations. PacifiCorp encourages the BLM to adopt Alternative C under MA #4207, which will allow it to continue its current IVM plan to target invasive plant species with the application of herbicides according to their label. In addition to impacting PacifiCorp's ability to perform vegetation management along its ROWs, Alternative B of MA #4207 would impact the ability of BCC to conduct weed control. The restrictions against chemical controls of noxious weeds in Alternative B conflict with permits, lease obligations, and regulations of different state and federal agencies, including the Permit to Mine issued by the DEQ Land Quality Division, and requirements of the Mine Safety and Health Administration (MSHA) to conduct weed/vegetation control in specific locations. Certain species, such as salt cedar, are only temporarily suppressed by mechanical removal and tend to resprout vigorously, and chemical treatments, which would be prohibited under Alternative B of MA #4207, are highly effective at inhibiting the spread of this species. The BLM currently requires Pesticide Use Plans at the BCC mine, and chemical weed control is an important part of this Integrated Pest Management. Under MA #4207, PacifiCorp recommends that BLM adopt Alternatives C or D. Similarly, Alternative B of MA #4207 dictates the use of BMPs (per Appendix A) for noxious/invasive weeds. However, in Appendix A (A.1.4), general BMPs for all alternatives include "Control the spread and effects of invasive non-native plant species (Evangelista et al. 2011), including treating weeds prior to surface disturbance." This general BMP is inconsistent with Alternative B, which prohibits the use of chemicals for controlling noxious/invasive weeds. Furthermore, under MA #4212 and #4213, limits on chemical use within certain distances of streams, rivers, and wetlands are included for Alternative B. It is unclear why these limits are included for Alternative B when chemical control is not allowed under that alternative. | A range of alternatives has been analyzed for control of noxious weeds in Chapter 2, management action 4207. Analysis of impacts from the actions in each alternative are found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-15 | D. MA #4213 Despite the contradiction in the forgoing paragraph, MA #4213, which prohibits vehicle and hand application of chemicals within ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status plants, would severely limit PacifiCorp's ability to perform IVM on its ROWs. IVM utilizing mechanical, biological, and chemical treatments is a critical component of vegetation maintenance that selectively targets invasive species of plants, as well as other non-desirable vegetation. Alternative B would place large restrictions on the areas in which herbicide treatments can be used as an effective tool. Alternatives A (preferred), C, or D of MA #4213 will allow PacifiCorp to continue its current IVM plan to target invasive plant species with the application of herbicides according to their label. Herbicides have been safely used by PacifiCorp near wetland and riparian areas with the BLM's approval for many years. Because PacifiCorp has numerous linear utility corridors, power lines inevitably cross streams and riparian areas, and existing ROW and special use permits issued by BLM may require weed control. Consequently, restrictions on the use of chemicals under Alternative B of MA #4207 and #4213, and the wide buffers under Alternative B of MA #4213 reduce PacifiCorp's options for effective treatments of noxious or invasive plant species. Likewise, the prohibition of chemical weed control within a ¼ mile of wetlands, riparian areas, aquatic habitats, and Special Status species, as identified in Alternative B of MA #4213, could jeopardize BCC's compliance with existing permit, lease, or regulatory requirements, as described previously. Alternatives A | A range of alternatives has been analyzed for application of chemicals in Chapter 2 management action 4213. Analysis for the impacts of the actions in each alternative are found in chapter 4. See Chapter 1.4 Planning Criteria for applicable laws and policies. |

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| | | (preferred), C, or D of MA #4213 provide more flexibility for PacifiCorp to use the appropriate and most effective method of control (biological, mechanical, or chemical), while also including reasonable buffers around aquatic features. Reclamation of decommissioned mine areas, roads, or utility corridors includes relatively large areas that have had significant soil disturbance, and typically have numerous invasive plant species. For effective reclamation, it is best to have every tool to prevent those species from becoming established, particularly in the early stages of reclamation. Removing chemical treatment from the options would reduce the effectiveness of reclamation and have a lasting negative effect on the soils, vegetation, and subsequent hydrology of reclaimed sites. 5. Wildlife and Fisheries Habitat Several of the management actions in this section of the DEIS conflict with permits or guidance issued by the U.S. Fish and Wildlife Service (USFWS) under the Migratory Bird Treaty Act (MBTA; 1918) and the Bald and Golden Eagle Protection Act (BGEPA; 1940) and overstep BLM's authority to manage habitat versus species. In addition, the management actions in this section should be consistent with the BLM's Biological Resources Goal # BR-21 which discusses accordance with these acts. | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-16 | A. MA #4407 PacifiCorp acknowledges the desire to conserve migratory bird habitat under MA #4407, and concurs that migratory bird habitat conservation should be implemented in accordance with regional or state bird conservation priorities and in accordance with EO 13816 (Responsibilities of Federal Agencies to Protect Migratory Birds, 2001). In regard to migratory bird habitat conservation, PacifiCorp concurs with Alternatives B, C, and D. However, the pre-construction survey requirements contained in Alternative D would severely impact PacifiCorp's ability to operate and maintain its facilities. Pre-construction surveys should not be required for routine O&M work or emergency repairs. In many cases, raptors and other migratory birds may nest on electric utility facilities; halting or prohibiting work in such instances could jeopardize operations, human health and safety, avian safety, and wildfire risks. PacifiCorp maintains Special Purpose - Utility (SPUT) permits with the USFWS, Chapter 33 permits with the Wyoming Game and Fish Department (WGFD), and has robust Avian Protection Plans (APPs) for its Transmission and Distribution (T&D) Operations, Generation, and Mining facilities, all of which detail and provide agency authorization for management of migratory bird nests and work around active nests when necessary. BLM is overstepping its authority by requiring nest surveys and halting work surrounding active nests, as this is under the jurisdiction of the USFWS under MBTA and BGEPA. Consequently, PacifiCorp recommends that the BLM adopt Alternatives B or C, which afford for migratory bird habitat conservation while recognizing USFWS authority over migratory birds and their nests. | A range of alternatives has been analyzed for migratory birds in Chapter 2, management action 4407. Analysis of impacts of actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for applicable laws and policies |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-17 | B. MA #4418 Prohibiting renewable energy development in big game crucial winter range and high-use/high-density raptor areas is unnecessary and removes vast areas of lands for potential renewable energy development(Milligan et al. 2021). Renewable energy facilities can implement BMPs on project sites to minimize wildlife impacts and would also be required to follow agency stipulations for projects cited on public lands. Likewise, USFWS manages the take of eagles and migratory birds, thereby negating the need for BLM to prohibit renewable energy projects in raptor habitat. PacifiCorp recommends that the BLM adopt Alternative A, C, or D under MA #4418. | A range of alternatives has been analyzed for renewable energy projects in big game crucial winter range, parturition and high density raptor nesting/roosting/perching sites in Chapter 2 management action 4418. Analysis of impacts from the actions in each alternative is found in chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-18 | C. MA #4421 Alternative B of MA #4421 prohibits surface disturbing activities on big game crucial ranges, parturition areas, migration corridors, and transitional habitats with no exceptions, even if impacts could be mitigated. Due to the proximity of several big game crucial ranges within BCC's permit area, the prohibitions of Alternative B could limit the ability of BCC to meet existing permit, lease, and reclamation obligations. PacifiCorp recommends that the BLM adopt Alternative A of MA #4412, as it is consistent with current permit and regulatory obligations. Likewise, Alternative D would also be acceptable as this alternative allows for some exceptions to be granted. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-19 | D. MA #4424 It is unclear if MA #4424 applies only to fluid minerals or to all surface disturbances, as the language differs between Alternatives B, C, and D. If the intent is to apply a ½ mile buffer around big game migratory corridors for all surface disturbances, this could impact PacifiCorp's ability to operate its system, serve customers, and meet project reclamation requirements. Big game routinely cross underneath power lines and utilize power line ROWs, renewable energy sites, and mine reclamation areas as habitat. BLM has failed to provide supporting evidence that prohibiting surface disturbance will benefit migrating big game. Likewise, "Identify and preserve wildlife species migration and travel corridors" is too vague and could pertain to any number of wildlife species that migrate and travel in corridors, further limiting where surface disturbing activities can occur. If the intent of this MA is towards big game, it should be clarified, and seasonal construction buffers should reflect those identified by the lead agency (WGFD); however, blanket restrictions on surface occupancy for all activities is unreasonable and rather should be evaluated on a case-by-case basis. For these reasons, PacifiCorp recommends that the BLM adopt Alternative A or C for MA #4424. | The language difference among the four alternatives is intentional. Please see Glossary for definitions of 'surface disturbance' and 'surface disrupting activities'. A range of alternatives has been analyzed for designated big game corridors in chapter 2, management action 4424. Analysis of impacts for actions in each alternative is found in chapter 4. |
| 816 - Biological Resources–Fish and | #13865-20 | E. MA #4426 Alternative B of MA #4426 closes areas that are near winter ranges and parturition areas to further development considerations including coal leasing. The effects of development on big game populations can be mitigated and a balance maintained through currently employed practices. The BLM should have the flexibility to consider further development and whether impacts of future projects could be mitigated. An outright closure of the winter ranges and parturition areas without consideration of other impacts or if the impacts from development | A range of alternatives has been analyzed for coal leasing and development in Chapter 2, management action 4426. Analysis of impacts for actions in each of the alternatives is found in chapter 4 |

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| Wildlife (4400-4436) | | could be mitigated appears to be at odds with the BLM mission to "...sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." Coal leasing and development are significant sources of revenue to the local economy and to local and state governments and closing areas to future development and coal leasing would likely impact this revenue source. PacifiCorp recommends that the BLM adopt Alternative A or D (both are the same), as this would provide flexibility to consider each project on a case-by-case basis, rather than a blanket closure. | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-21 | F. MA # 4427 The overlap of seasonal closures for vehicle travel in all alternatives of MA #4427 would block necessary travel and access for PacifiCorp. This includes areas that BCC is mandated to monitor as a permit requirement. Denying access to conduct monitoring by the seasonal closure of roads could put BCC in violation of its DEQ Land Quality Division Permit to Mine. These road closures would also limit reclamation activities of BBC and other PacifiCorp projects. Vehicle travel must be allowed when needed to access PacifiCorp's projects, power lines, and other assets year-round for O&M activities and during emergencies. The extended duration of seasonal closures is problematic because it narrows the window in which certain areas can be accessed and work performed. The cumulative closure period for all wildlife resources combined in MA #4427 is from November 15 to June 30 (for Alternative D) or July 31 (for Alternatives B and C), which leaves utilities with August 1 to November 14 to perform work. This is not sufficient time to complete necessary O&M or construction. In addition, closing vehicle traffic in raptor nest areas is contradictory for locations where raptors nest on utility infrastructure and can require nest management or other O&M work during the nesting season. Restricting access would prevent PacifiCorp from complying with its APP, company avian policies, and commitments to the USFWS that require timely retrofitting of poles with eagle or migratory bird mortalities. Likewise, PacifiCorp has agency mandated timeframes to respond to facility conditions. Failure to meet these timeframes puts the company at risk of substantial fines, regulatory noncompliance, and safety concerns. PacifiCorp recommends that the BLM adopt Alternative A under MA#4427, and allow vehicular travel when necessary. PacifiCorp also recommends that all seasonal buffers be waived for emergency work and time sensitive O&M or repairs. | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-22 | G. MA # 4428 Alternatives A and B of MA #4428 are overly broad, overstep BLM's authority by attempting to regulate migratory birds, and conflict with guidance issued by the USFWS. USFWS is the agency with authority to regulate raptor conservation and take under the MBTA and BGEPA. While BLM has the authority to regulate habitat on BLM-managed lands, the agency does not have the authority to regulate raptor species. By setting nest criteria that contradicts that of the USFWS, the BLM is overstepping its authority. In addition, the BLM fails to analyze how these contradictory measures reflect current best science or offer tangible benefits to raptors. Under Alternatives A and B, "protections" would be afforded to nests that are not currently active or occupied; this is illogical as it does not afford protection to these species if nests are vacant and contradicts with USFWS guidance. Protections for raptor nest sites should apply only to verified occupied nests in the current year an activity is being performed, not historic nest sites. In addition, changing from species-specific buffer distances to blanket buffer distances is arbitrary and does not account for the unique biology of each species. The following are specific concerns with language in MA #4428: ? Consistent with USFWS guidance, protections for raptor nest sites should apply only to verified occupied nests in the current year an activity is being performed, not historic nest sites. The USFWS memorandum "MBPM-2" (Migratory Bird Permit Memorandum, April 15, 2003), states: "The MBTA does not contain any prohibition that applies to the destruction of a migratory bird nest alone (without birds or eggs), provided that no possession occurs during the destruction." Since the publication and implementation of national APP Guidelines in 2005 between the USFWS and the Avian Power Line Interaction Committee (APLIC), the USFWS directive to electric utilities has been that "active" nests are "those with eggs or young present" (APLIC and USFWS 2005; APLIC 2006). USFWS allows for destruction of migratory bird nests, yet BLM is proposing significant buffers for such nests under Alternatives A and B of MA #4428. While utilities do not remove or destroy inactive nests unless necessary due to a safety or fire risk, the application of buffers around such nests is an unnecessary restriction against the safe operations and maintenance of electrical infrastructure. ? Under Alternative A of MA #4428, BLM identifies an active nest as "one that has been occupied within the past three years." This contradicts the USFWS directive, which has been implemented effectively for two decades under MBPM-2, and defines active nests as those with eggs or chicks. PacifiCorp recommends that the BLM adopt the USFWS definition of an active nest as those which contain eggs or chicks. ? Under Alternative A of MA #4428, BLM defines a historic nesting site as "an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors." The basis of this definition is questionable, as topographic relief is unrelated to historic nesting activity. Active nests, as defined by USFWS, would be protected from disturbance by nest buffers. BLM's concern to maintain historic nests sites would be addressed by active nest buffers and by USFWS authority over nest destruction. ? The term raptor "feeding areas" used in Alternative B of MA #4428 is far too vague and expansive to be useable or practical, and should be removed as an alternative. Indeed, nearly all of the RSFO could potentially fall under the category of a "raptor feeding area." Different raptor species have varied and complex life cycles and feeding areas may be focused in different locations based upon season and a variety of conditions. Feeding areas could include locations around nests, concentrations near winter roost areas, large landscapes used for migration, and wintering areas. Likewise, some raptors may perch hunt from power poles or other infrastructure, resulting in nonsensical feeding buffers around anthropogenic features. Raptors are not | A range of alternatives has been analyzed for raptor nesting protections in Chapter 2.2.6 management action 4428 - 4434. Analysis of impacts of each of these alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria and Appendix E for compliance with applicable laws. Note also that Alternative A is the existing management in place since 1997. |

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| | | particularly sensitive to human activities near feeding areas, nor would activity in these areas be detrimental to their life cycle in most situations. This is particularly true of utility O&M activities that are typically limited in footprint and short in duration. Feeding areas are much less sensitive to disturbance impacts than nest areas; consequently, active nest buffers would provide more appropriate protection to raptors. PacifiCorp recommends that the BLM remove restrictions or buffers around "raptor feeding areas." ? PacifiCorp concurs that topographic barriers may influence buffers. For example, if there are significant topographic features between an activity and a nest, a nest buffer distance may be reduced since the activity may not be seen or heard by the nesting birds. ? Activity types around raptor nests should also be considered when identifying nest buffers. Buffers should be applied for new construction activities; however, routine maintenance and emergency activities should be exempted from buffers as these activities are typically short in duration, pose minimal disturbance risk, and are necessary for safety and reliability reasons. Raptor protections should include allowing a biologist to monitor occupied raptor nests while work is being done inside raptor nest buffers if it is appropriate for the species and type of work. In many locations within the RSFO, harsh winter conditions and associated restricted access limit construction windows and necessitate construction during the summer months. Utility APPs identify activity types and nest protection measures, which may range from seasonal/spatial buffers for new construction, use of biological monitors for projects that may extend more than several hours, or no buffers for necessary work within shorter durations. PacifiCorp recommends that the BLM allow utilities to continue these practices, which have been established with and undergo ongoing review by USFWS. ? MA #4428 fails to recognize that utility infrastructure can create nesting substrates for raptors, including several species listed as BLM Wyoming Sensitive Wildlife Species (bald eagle [BAEA], peregrine falcon [PEFA], and ferruginous hawk [FEHA]). Implementing buffers around utility infrastructure could impact safe operations and maintenance of the electric grid. Necessary O&M work on utility infrastructure within nest buffers should be exempted from buffer restrictions as detailed above, and instead managed under APPs and USFWS permits/agreements. ? PacifiCorp concurs that different raptor species require different disturbance buffers, and encourages the BLM to use buffer distances that are consistent with USFWS guidance for eagles and other raptors (see Romin and Muck 2002; USFWS 2007; USFWS 2022). These documents are applicable within the USFWS Region 6 area, and have been effectively used by the USFWS and industry for two decades. Appendix J of the DEIS includes seasonal wildlife restrictions, with dates and buffers for various raptor species. Alternatives A, B, C, and D all differ from USFWS guidance for various species, and PacifiCorp recommends that the BLM modify its alternatives to align with USFWS guidance. Specifically, PacifiCorp recommends the following: o Appendix J.1. Alternative A is consistent with USFWS for golden eagles (GOEA) with a ½ mile buffer; however, other distances contradict USFWS guidance (other raptors have a blanket buffer of ½ mile under BLM vs. species-specific buffer distances under USFWS). o Appendix, J.2. Alternative B uses blanket buffer distances "within 2 miles of active and historic nests." This is overly restrictive, contradictory with USFWS guidance, and appears only to restrict and hinder development and operations of permittees. Likewise, BLM fails to justify the need for buffers beyond USFWS recommendations, and fails to document the biological benefits of the blanket buffer distances to the various species. o Appendix J.3. Alternative C implements a blanket buffer distance of ½ mile of active nests. Under this alternative, buffers only apply to active nests, which is consistent with USFWS. However, the buffer distance is inconsistent with USFWS guidance, which uses species specific buffers that are 1/8, ¼, ½, or 1 mile depending on the species. PacifiCorp recommends that the BLM modify this alternative to use buffer distances consistent with USFWS. o Appendix J.4. Alternative D applies differing buffer distances around "occupied and historic nest sites." Buffers around historic nests are overly restrictive, contradictory with USFWS guidance, and appear only to restrict and hinder development and operations of permittees. Likewise, BLM fails to justify the need for buffer distances beyond USFWS recommendations, and fails to document biological benefits to species for buffers around historic or unoccupied nests. On some projects in other BLM Field Offices, PacifiCorp has been required to monitor historic nests; this has resulted in increased project costs and none of the historic nests have been subsequently used in future years. Rather, the nests continue to deteriorate over time. PacifiCorp does not want the BLM to perpetuate such a requirement, as there is no biological reason or benefit to justifying protections or surveys of unoccupied and dilapidated nests. As stated previously, USFWS nest protections apply only to active nests because there is not a biological reason or regulatory requirement to implement a buffer around an inactive nest. Under this alternative, BLM buffer distances for GOEA, FEHA, and burrowing owl (BUOW) are the same as USFWS guidance; however, BLM buffer distances conflict with USFWS for BAEA and "general raptor." BLM fails to explain why a 2.5-mile buffer is used for BAEA (occupied and historic nests), when USFWS guidance is 330ft or 660ft, depending on the visibility of the activity (USFWS 2007). As noted previously, a blanket buffer of ½ mile for other raptors is inconsistent with USFWS guidance, which uses species-specific buffers that are either 1/8, ¼, ½, or 1 mile. o All alternatives under Appendix J provide broad nesting dates. There should be flexibility to adapt nest buffer dates based on the actual nest activity dates. For example, buffers for Swainson's hawks (SWHA) should not begin on February 1, as this species does not return from migration until well after this date (USFWS buffer dates start on April 1 for SWHA). Likewise, if an active raptor nest has fledged by June 25, the buffer should not be held until August 15. This is consistent with USFWS guidance regarding protection of active nests and reflects the spirit of MBTA to protect nests while they are active. o None of the alternatives under Appendix J are consistent with the lead agency (USFWS) for these species. Therefore, PacifiCorp questions the adequacy of BLM's analysis for nest | |

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| | | buffers, including consistency with other agency recommendations. PacifiCorp recommends that the BLM modify Alternative C to use species-specific buffer distances consistent with USFWS established buffers (see USFWS 2022), and maintain these buffers around active nests only, not historic nests. Likewise, buffer dates should be adaptable to actual dates of nesting activity as described above. In addition to the above concerns with MA #4428, PacifiCorp notes that the BLM has failed to consider current USFWS regulatory changes to MBTA and BGEPA. USFWS is currently revising the regulations pertaining to bald and golden eagle permits (50 CFR Part 22) and contemplating making available permits to take other migratory birds protected under the MBTA. Should a company obtain either of these permits, raptor nest restrictions in the permits should supersede raptor nest restrictions in the BLM's Management Plan. Likewise, current utility SPUT or Eagle Take Permits (ETP) issued by USFWS, as well as Chapter 33 permits issued by WGFD, should supersede BLM RMP management actions regarding nests of eagles and migratory birds. PacifiCorp recommends that the BLM adopt Alternative C of MA #4428, with the modification to Appendix J as detailed above. PacifiCorp recommends that this modification to MA #4428 also be used instead of Alternative A of MA #4429. | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-23 | H. MA #4430 MA # 4430 establishes No Surface Occupancy (NSO) restrictions for facilities within raptor nest buffers under all alternatives and is an excessive and unnecessary burden on industry for which BLM has failed to analyze associated impacts. Many of the concerns identified under our prior comments for MA #4428 also apply to MA #4430, including protections around historic or inactive nests, and feeding areas, and buffer distances that are inconsistent with USFWS guidance. Likewise, MA #4430 fails to recognize that numerous raptor species use infrastructure, such as power poles, for nest substrates. This MA also contradicts USFWS guidance by creating NSOs rather than buffers, and fails to apply industry best practices that prevent or mitigate potential negative impacts. Best practices for the electric utility industry, developed by APLIC and USFWS (see APLIC and USFWS 2005, APLIC 2006, APLIC 2012) apply avian-safe construction methods to prevent bird mortalities associated with power lines. Likewise, wind energy developments implement various raptor protection measures in coordination with USFWS. PacifiCorp recommends that the BLM remove all NSO requirements around raptor nests under MA #4430 and rather allow new infrastructure that follows current industry best practices for avian protection, such as APLIC guidance. PacifiCorp proposes that the language for Alternative C under MA #4430 be modified and accepted as: "Project components, such as permanent and high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.. ) are allowed within occupied raptor nest buffers if the projects utilize current industry best practices for avian protection and are constructed outside of the appropriate seasonal and spatial buffers for the species." | A range of alternatives has been analyzed for raptor nesting protections in Chapter 2.2.6 management action 4428 - 4434. Analysis of impacts of each of these alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-24 | I. MA #4431, #4432, and #4433 MA #4431 is duplicative of MA #4428. Consequently, PacifiCorp reiterates its comments regarding buffer distances, feeding grounds, and occupied vs. historic nests detailed under MA #4428 here. PacifiCorp recommends that the BLM adopt the above comments under MA #4428 and refer to MA #4428 under MA #4431. PacifiCorp also recommends that MA #4432 and #4433 reference the proposed changes to MA #4428. | A range of alternatives has been analyzed for raptor nesting protections in Chapter 2.2.6 management action 4428 - 4434. Analysis of impacts of each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-25 | J. MA #4434 MA #4434 requires raptor nest surveys within buffer distances that are in excess of what would be required to identify and protect nests, particularly under Alternative B, which requires surveys within a 4- mile radius of projects. The BLM fails to analyze or justify this 4-mile radius, or explain why it differs from established guidance from USFWS or through existing permits. ? BCC current mine permits and USFWS requirements require raptor surveys within two miles of the mine permit boundary, which is inconsistent with the BLM's 4-mile radius; ? In the absence of existing USFWS guidance or other permit requirements, survey efforts should align with the buffer distance for a species, rather than basing the distance on a blanket 1- or 4-mile radius. For example, per USFWS (2022), FEHA buffers are 1 mile; consequently, a nest survey radius for FEHA should be 1 mile. For GOEA, prairie and peregrine falcons, and American goshawk, the buffers recommended by USFWS are 0.5 mile; therefore, the nest survey radius for these species should be 0.5 mile. By using survey radius based on the species, efforts can be focused on the suitable habitats for particular species within the project area. This is more targeted and cost effective than a blanket approach and will still identify and satisfy raptor nests and buffer needs; and ? Alternative A stipulates that nest surveys would need to be completed only if construction is to occur during the nesting season. Importantly, this limitation on the need for surveys is missing from Alternatives B and D, and is necessary because nest surveys should not be required if construction is to occur outside of the nesting season. PacifiCorp recommends that the BLM adopt Alternative D of MA #4434 with a change in language from "within one mile" to "within appropriate buffer distances for the species." | A range of alternatives has been analyzed for raptor nesting protections in Chapter 2.2.6 management action 4428 - 4434. Analysis of impacts of each of these alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-28 | M. MA #4616 It is unclear how many additional lands would be impacted by mineral lease withdrawals or non-renewals under Alternative B of MA #4616. Under Alternative B of MA #4616, PacifiCorp is concerned that mineral leases would not be re-offered once they expire, which will have significant impacts to BCC, including impacts to operations and fulfilment of existing lease and permit obligations. PacifiCorp recommends that the BLM adopt Alternative D of MA #4616 as it would allow current operations and would be consistent with current permits, regulations, and policies. | See Glossary for a definition of 'withdrawal', which does not apply to fluid or solid mineral leasing. A range of alternatives has been analyzed for protection of special status species habitat in Chapter 2.2.6 management action 4616. Analysis of the impacts of actions in each alternative are found in chapter 4. |

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| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-30 | In addition, map 3-4 (Raptor Nest Sites) has an error. Canada goose and common raven are listed and included under 'Occupied Raptor Nests' in the Raptor Nest Sites Map 3-4. Neither one of these species should be listed as a raptor. | See Map 3-4 for updates. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-31 | O. Bridger Coal Company BCC has a USFWS-approved Migratory Bird Protection Plan and Raptor Mitigation Plan that is incorporated in the Company's Permit to Mine and updated and approved every five years. The last update and approval occurred in 2022. BCC should be allowed to operate under the USFWS approved plan and is concerned that the BLM restrictions would conflict with permits and plans already in place. There is concern that BLM-proposed buffers around inactive nests would interfere with BCC's ability to conduct nest monitoring and management. BCC possesses USFWS and WGFD permits that authorize it to relocate raptor nests from mine pit walls to nest platforms, which are typically located near mine operations otherwise birds may abandon the nests if they are moved too far. These relocated nests may fall within buffer distances or NSO distances (see MA #4430) under the draft RMP, presenting a conflict between BLM proposed stipulations and existing USFWS and state permit requirements, agreements, and long established protocols. BCC has monitored raptors for 45 years inside the permit boundary and for a two mile radius outside of the permit boundary, and have documented over 500 active and historic nests. BLM-proposed buffer restrictions around historic nests would prevent BCC from operating from February 1- August 15 of each year. This would result in significant economic impacts, threaten the ability to provide electricity to customers, and impact BCC's environmental and mining regulatory compliance, including reclamation. Reclamation activities are conducted year-round to prepare reclamation areas to meet the short seeding window in the fall. Inactive nest buffers, coupled with seasonal road closure restrictions, would also impact the required raptor and other wildlife monitoring that BCC is required to conduct per its Permit to Mine. The questionable benefit of buffering historic nests is again a concern, as BCC has data from the last 45 years of raptor monitoring that shows an increase in raptors in an area without historic nest buffers. BCC is able to provide this data to BLM upon request. | See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-37 | 11. Renewable Energy Alternative B will significantly impair the ability to operate existing renewable energy and the development of new renewable energy projects. The land use, time and distance, and travel prohibitions and restrictions under Alternative B will potentially limit access to renewable energy development sites, vehicular routes to renewable energy sites, the placement of renewable energy facilities, structures, and transmission lines and pipelines. The restrictions in Alternative B will also potentially limit site preparation and construction activities associated with renewable energy development and have operational restrictions on renewable energy projects. Future renewable energy projects could require additional impact minimization measures as impacts become known and better understood. Prohibiting renewable energy projects in big game crucial winter range and parturition habitat, raptor concentration areas, currently mapped unique habitats, or new areas identified as part of site-specific investigations would preclude renewable energy development in those areas. | A range of alternatives has been analyzed related to renewable energy project in Chapter 2.2.6. Analysis of impacts for actions in each of these alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-45 | Similarly, much of BCC's permit area is considered antelope crucial winter range. Western portions within the permit boundary also have overlapping crucial elk winter range. Any of the big game seasonal restrictions and stipulations in Alternatives B or D that would require surface disturbing activities to stop or severely restrict surface disturbing activities in these areas could have impacts on operations including those that allow BCC to meet regulatory, permit, and lease obligations such as contemporaneous reclamation requirements and monitoring requirements. | A range of alternatives has been analyzed for big game seasonal restrictions in Chapter 2.2.6. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-46 | Finally, the effects of buffering around historic raptor nests in both Alternative B and Alternative D have the same effect on BCC's and PacifiCorp's operations. BCC is required to monitor raptor territories and nests within its permit area. BCC created maps illustrating buffers around all active and historic nests as defined in the RMP and found that both Alternatives B and D as written would have a significant negative impact on operations, including reclamation. | See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13865-47 | [comment:13865-47; 824, 827]. In addition to the inconsistencies already discussed, Alternative B will create regulatory inconsistencies across BLM field offices and is beyond the scope of BLM regulation. There must be consistency across BLM field offices. For linear utilities or any project that straddles field office boundaries, changing how any resource is managed within multi-agency process driven protocol is going to result in confusion, inconsistencies, and the immediate need for variances and exceptions. Disregarding the VRM process or Section 106 process that ultimately finds its way to SHPO so that affects are seen differently than all other BLM Field offices will create inconsistent evaluation of the same resource. Alternative B exceeds BLM regulatory authority by, for example, changing avian seasonal stipulations and buffers that have been established by other agencies is beyond the scope of a land management agency.[comment end] | See Chapter 1.4 Planning Criteria for compliance with laws, policy and valid and existing rights. |
| 816 - Biological | #13889-2 | 4408 and 4409. Alt. A,C and D all allow for water development. Water is a critical component to every living creature. The agency should not be limited to water development for big game or wildlife. Water development for | A range of alternatives has been analyzed for water developments in Chapter 2 management action 4408. Analysis of impacts of the actions in each alternative is found in Chapter 4. |

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| Resources–Fish and Wildlife (4400-4436) | | livestock, wildlife, and wild horses takes pressure off riparian areas and disperses animals throughout the range. It would be beneficial for all wildlife not just big game and sage grouse with the development of water off the riparian areas and existing developments. Water developments reduce trampling, increase vegetation, and other beneficial outcomes by providing other avenues for water to all animals out in the management area. Livestock are not the only animals that influence riparian health. Water development improves not only riparian areas but provides a valuable resource to wildlife. | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13904-4 | MA 4420 Alt B Prohibit livestock grazing in big game parturition habitat during the birthing season (usually from May 1 through June 30). That is not reasonable. There is no basis for a blanket regulation. The time to determine if there are adjustments to grazing to meet conflicts, if any, with big game parturition, is to the permit renewal process. | A range of alternatives has been analyzed for big game parturition habitat in Chapter 2 management action 4420. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13905-1 | The Green River RMP (reflected in Alternative A) specifies ESA consultation on listed species only in the Jack Morrow Hills CAP area (DEIS at 2-81), while the Preferred Alternative would consult with USFWS throughout the planning area. This is a nondiscretionary legal requirement under the ESA, so it is not optional. It is beneficial to include this in the plan, as an extra reminder for land and resource managers not to forget this important procedural step. Conducting field surveys for Special Status wildlife species (as in Alternatives B and D) is wise to avoid unforeseen impacts to listed species. | See Chapter 1.4 Planning Criteria for compliance with laws and policy. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13908-14 | 4408 B Consider water developments only if wildlife habitat and resource conditions would be improved or maintained. Match language in Alternative D and include consultation with WGFD. Allow water developments in big game crucial winter range and parturition areas on a case-by-case basis in consultation with WGFD and subject to adequate mitigation of impacts following BLM mitigation policies. | A range of alternatives has been analyzed for water developments in Chapter 2 management action 4408. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13908-16 | 4418 B Prohibit renewable energy projects in big game crucial winter range and parturition habitat, raptor concentration (high-use/high- density raptor nesting/roosting/perching areas) areas, and currently mapped unique habitats (e.g. aspen and mountain shrub) or new areas identified as part of site-specific investigations. Research regarding the impacts of renewable energy projects to big game is lacking and should be considered prior to a complete prohibition. Raptor concentration areas are not defined or delineated in any provided figures. Allow for consideration on a case-by-case basis. Avoid renewable energy projects in big game crucial winter range and parturition habitat, defined raptor concentration (high-use/high- density raptor nesting/roosting/perching areas) areas, and currently mapped unique habitats (e.g. aspen and mountain shrub) or new areas identified as part of site-specific investigations. Development may be considered on a case-by-case basis. | A range of alternatives has been analyzed for renewable projects in big game crucial winter range and parturition habitats, raptor concentration areas and currently mapped unique habitats in Chapter 2, management action 4418. Analysis of impacts for actions in each alternative are found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13908-18 | 4421 B Prohibit surface disturbing or disruptive activities on big game crucial winter ranges, parturition areas, migration corridors and transitional habitats, as idenfied by WGFD. Remove migration corridors and transitional habitats since migration corridors are refernced in MA 4424. Add language that allows for exceptions on a case-by-case basis, as is the norm for other RMPs in Wyoming, and allow for habitat treatments. WGFD should be consulted given our management responsibilities. Prohibit surface disturbing or disruptive activities on WGFD-identified big game crucial winter ranges from November 15-April 30 and parturition areas from May 1-June 30. Consider exceptions on a case-by- case basis if impacts will not adversely impact the population being protected or they will benefit the resource values. Exception requests will be reviewed in consultation with WGFD. | A range of alternatives has been analyzed for surface disturbing or disruptive activities in big game crucial winter ranges, parturition areas, migration corridors and transitional habitats in chapter 2.2.6 management actions 4421. Analysis of impacts for actions in each of the alternatives is found in chapter 4. See Appendix B: Exceptions, Modifications and Waivers, Table B-1. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13908-19 | 4421 B Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing Recent scientific publications provide disturbance thresholds that allow for limited development resulting in minimal to no impact to big game, dependent on location of development. Prohibiting surface disturbing/disruptive activities with an exception process and closely reviewing all proposed developments will allow for some level of development while adequately protecting big game herds. Protection will be further enhanced with mitigation as provided in Alternative D language. Remove from alternative. | A range of alternatives has been analyzed for surface disturbing or disruptive activities in big game crucial winter ranges, parturition areas, migration corridors and transitional habitats in chapter 2.2.6 management actions 4421. Analysis of impacts for actions in each of the alternatives is found in chapter 4. See Appendix B: Exceptions, Modifications and Waivers, Table B-1. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13908-20 | 4421 B Steamboat Mountain ACEC is closed to motor vehicle use from May 1 though June 30 for crucial birthing habitat for deer and elk. Closure includes much greater area than necessary. We recommend closure is restricted to the parturition area, which is captured in the Alternative D language. The Elk Parturition area within the Steamboat Mountain ACEC is closed to motor vehicle use from May 1 to June 30 for crucial birthing habitat for deer and elk. | A range of alternatives has been analyzed for surface disturbing or disruptive activities in big game crucial winter ranges, parturition areas, migration corridors and transitional habitats in chapter 2.2.6 management actions 4421. Analysis of impacts for actions in each of the alternatives is found in chapter 4. See Appendix B: Exceptions, Modifications and Waivers, Table B-1. |
| 816 - Biological Resources–Fish and | #13908-22 | 4424 B Prohibit surface-disturbing activities within 1/2 mile of a big game migration corridors to avoid constriction of current or future identified big game corridors. A 1/2 mile protective buffer applied to migration corridors is not supported by the science. This should not be included in any alternative. | A range of alternatives has been analyzed for designated big game corridors in chapter 2.2.6 management action 4424. Analysis of impacts for actions in each alternative is found in chapter 4. |

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| Wildlife (4400-4436) | | | |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13923-1 | In order to align with state species management goals, and be consistent with future BLM planning efforts, we request that the Final RMP incorporate the management criteria set forth within the Wyoming Executive Order 2019-3, Greater Sage-Grouse Core Area Protection. Additionally, the Wyoming Greater Sage-grouse core area map that was recently updated and provided to the BLM via the Wyoming Sage-grouse Implementation Team (SGIT) and the Wyoming Governor's office should be incorporated into the Final Rock Springs RMP. | Analysis of management for Greater Sage-grouse is being conducted in a separate document and is outside the scope of this document. See Chapter 1.3 for discussion. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13923-13 | The language in Management Action #4424 states that the BLM will work with project proponents to create a conservation plan. Sportsmen request that the BLM also work in partnership with WGFD to develop a conservation plan from the outset. The MA #4424 should recognize WGFD's authority to manage wildlife and the important role the agency plays to inform land management decisions for the health of wildlife on state and federal lands in Wyoming. The BLM should consult with WGFD early and often to appropriately site development projects outside of designated migration corridors. | A range of alternatives has been analyzed for designated big game corridors in chapter 2.2.6 management action 4424. Analysis of impacts for actions in each alternative is found in chapter 4. See Chapter 1.4 Planning Criteria authorities and compliance with applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13923-18 | To emphasize WGFD involvement, sportsmen support Alternative D for MA #4424 and request the following language pertaining to migration corridors be included in the Rock Springs Final RMP. ? Wherever possible, development, infrastructure and use should occur outside of designated corridors. Inside corridors, regulatory agencies should support the continued functionality of designated migration corridors by conditioning permits to avoid and minimize impacts from development or use allowed within the corridor. | A range of alternatives has been analyzed for designated big game corridors in chapter 2.2.6 management action 4424. Analysis of impacts for actions in each alternative is found in chapter 4. See Chapter 1.4 Planning Criteria authorities and compliance with applicable laws. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13923-21 | We request the management prescriptions as outlined in Alternative D MA #4421 be adopted in the final plan with the following language changes. 11 ? We request that surface disturbing activities be prohibited in these areas as the default, not allowed as noted in this management action. | A range of alternatives has been analyzed for surface disturbing or disruptive activities in big game crucial winter ranges, parturition areas, migration corridors and transitional habitats in chapter 2.2.6 management actions 4421. Analysis of impacts for actions in each of the alternatives is found in chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13923-22 | For Management Action #4418, we support Alternative B that will prohibit renewable energy development projects in crucial habitat. Additionally, because these resource values are not compatible with wind energy development, ROW authorizations should not be issued within these areas. This is congruent with the 2005 Final Wind Programmatic Environmental Impact Statement and should be consistent in the planning area. | A range of alternatives has been analyzed for renewable projects in big game crucial winter range and parturition habitats, raptor concentration areas and currently mapped unique habitats in Chapter 2.2.6, management action 4418. Analysis of impacts for actions in each alternative are found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13923-24 | Additionally, we recognize that the BLM is currently conducting a programmatic Environmental Impact Assessment to revise the Western Solar Plan. If Wyoming is included in this plan, we support amendments to the RSFO RMP to manage future solar development that minimizes impacts to wildlife resources. | The Solar PEIS will amend the RSFO RMP. Also, see Section 1.4 for the Planning Criteria. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13927-1 | Overall, we support the recommendations for the GLMA made by the GLMC and the Wyoming Governor's Task Force. However, in the Currant Creek Portion of the Red Creek ACEC, Sage Creek Portion of the Red Creek ACEC, and Pine Mountain Management Areas - because of the unique and sensitive nature of the CRCT habitat found in these areas as well as TU's long track record of investment in habitat restoration in collaboration with the BLM, state agencies, industry, and private landowners - we ask that you consider making lands in these areas unavailable for leasing to provide greater protection than No Surface Occupancy stipulations. | A range of alternatives has been analyzed for the Greater Red Cr. ACEC in Chapter 2.2.6 management actions 7418-7445. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #13927-2 | When considering the effects of energy development in the GLMA, it is important to recognize that land ownership patterns could exacerbate fish and wildlife impacts from oil and gas development by focusing infrastructure on stream valley locations. Should No Surface Occupancy (NSO) stipulations be implemented on BLM lands, accessing underlying oil and gas resources would require directional drilling from State and private lands, which are predominantly located along streams (Figure 1). These valley bottoms and riparian zones are highly sensitive to surface disturbances, while also being rich habitat for both native trout and wildlife. For instance, the CRCT population in Currant Creek is almost entirely located on state lands where infrastructure would have to be located in order to potentially access nearby federal minerals. | A range of alternatives has been analyzed for the Greater Red Cr. ACEC in Chapter 2.2.6 management actions 7418-7445. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #14023-8 | I recommend that any new fencing be made wildlife friendly as de?ned by the Wyoming Game and Fish department. | See Chapter 1.4 Planning Criteria for consultation with other agencies. BLM's fencing Manual provides requirements for wildlife friendly fencing |

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| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #14023-9 | The Rock Springs District RMP should be driven by a conservation agenda, one that will conserve the best of the unique landscapes, habitats, and native biodiversity it sustains. The RMP should re?ect the District's place in the larger Wyoming landscape; its critical role in providing winter habitat for wildlife that summers tens, if not hundreds of miles to the north. It should also protect, and where and whenever possible enhance habitats for resident wildlife and native plants. It should evaluate, consider, and mitigate how energy development impacts air- and watersheds far removed from the district. It should recognize, respect, and protect the history and locations once utilized by our indigenous ancestors. | See Chapter 1.2 Purpose and Need for the Resource Management Plan Amendments and refer to Section 1.4 for the Planning Criteria. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #14026-8 | Further, NRECA is concerned about the preferred alternative's wildlife management proposals. Restrictions on major and principle uses, including electricity infrastructure, based on big game and raptor habitat are under the jurisdiction of the U.S. Fish and Wildlife Service ("USFWS"), not BLM.12 Rather than including such prescriptive requirements such as buffer zones and no mitigation options in the RMP process, BLM should entrust management of protected species in the region to the expertise of USFWS and their established wildlife management processes. | See Chapter 1.4 Planning Criteria for compliance with applicable laws and authorities, and consultation with other agencies. |
| 816 - Biological Resources–Fish and Wildlife (4400-4436) | #14027-10 | the description of total acreage being placed off limits for mining projects under the preferred alternative B does not take into account acres that may be off limits due to sage grouse management.51 This lack of coordination prevents adequate review of the draft RMP/EIS and completely undermines the Appendix T, the cumulative impacts analysis section. | Analysis of management for Greater Sage-grouse is being conducted in a separate document and is outside the scope of this document. See Chapter 1.3 for discussion. |
| 816.01 - General Wildlife | #250-2 | On numerous pages through out the RMP it discusses the “natural community” and the regulations that are required to insure “natural community.” What analysis do you have that can ensure that nature and natural animals don’t modify or change the “natural community”? None is provided for the assurance of this in the RMP. Example: pine beetles, beavers, massive elk herds. They change the whole of a landscape within a single cycle. | See Executive Summary and Chapter 4.2.2 adequacy of data, and analysis. See also Section 1.4 for the Planning Criteria, including issues identified for analysis. Assumptions for each resource analysis can be found in Chapter 4. |
| 816.01 - General Wildlife | #436-1 | How does the "relocating" predators or no kill affect the indigenous animals. FYI - "High plain desert," "incredibly bad winter," decreased wildlife & predator's = decreased & predator's = increased risk of predator's leaving areas & endangering humans | Relocation of predators is outside of the scope of this document, and outside BLM jurisdiction. See Chapter 1.4 Planning Criteria. |
| 816.01 - General Wildlife | #8686-2 | All the west, federal governments, state governments and private landowners have dedicated much of the past many years to preserving and stabilizing the sage grouse habitat, its’ range and population. Your Plan B restricting or eliminating predator control will reverse any gains made for the sage grouse. Your Plan B also will help destroy the antelope and deer populations. They struggle enough with Wyoming’s winters and if you eliminate predator control on lands under plan B, you are placing another nail in their coffin. | Analysis of all four alternatives for fish and wildlife species is found in section 4.7. Management for fish and wildlife are addressed for all alternatives in management actions 4400 - 4436. Management for predators is covered for all alternatives in the Invasive species and Pest Management Section, specifically management action 4211. Sage-grouse management is being analyzed separately and is outside the scope of this document, and is addressed in Section 2.2.5 Overview of Alternatives. |
| 816.01 - General Wildlife | #9793-7 | Explain how offsite mitigation will be used and where. Pages 2-209 South Wind River ACEC, 2210 East Sand Dunes ACEC, p 2-211 Big Game Migration Corridor, all mention "Manage a separate offsite mitigation area for biological impacts from energy development." Yet the Preferred Alternative will make these areas unavailable for leasing or energy development. Explain. Where will this offsite mitigation area be located? Is it within the RSFO? Page 4-73 states: "Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation," from both the South Wind River ACEC as well as the Big Game Migration Corridors ACEC under Alternative B. Yet referring to the South Wind River ACES on p4-103 through p4-104 states "Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation." These are different species than identified in the earlier pages. Why the inconsistency, and what is the specific plan for offsite mitigation? The claim that this off-site mitigation could result in benefits to swift fox is a bit concerning, since the swift fox is a species not known to occur in the RSFO. Please explain how offsite mitigation will work, and why this provision is specifically added to these three ACECs. | See Chapter 3 for a list of species found within the planning area. See Glossary for a definition of 'offsite mitigation'. A range of alternatives has been analyzed for the East Sand Dunes ACEC and the Big Game Migration Corridor ACEC in Chapter 2.2.6 management actions 7548 - 7562. Analysis of impacts for actions in each of the alternatives is found in chapter 4. |
| 816.01 - General Wildlife | #9846-4 | TP, page 2-65, states that BLM will “allow animal damage control on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns.” However, Page 2-60, the same alternative states “Designate, in coordination with APHIS-WS, the entire planning area as a “restricted control area” for animal control” without specifically define “restricted control area.” It also states BLM will “Emphasise non-lethal methods.” | See glossary for updated text |
| 816.01 - General Wildlife | #9850-1 | I'm commenting in regard to the lack of timing restrictions related to sagebrush-obligate songbirds, such as sage thrasher, sage sparrow and Brewers sparrow. These species, all protected by the MBTA and all BLM SSS, would be afforded no protection from the direct destruction of nests/young when projects impact sagebrush habitat. The lack of timing restrictions seems arbitrary and capricious as the BLM offers timing restrictions for breeding raptors, sage-grouse, and many mammal species. | A range of alternatives has been analyzed for migratory birds in Chapter 2.2.6, management action 4407. Analysis of impacts of actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13078-1 | First, Appendix F states that the “BLM will require application of all appropriate conservation measures” with regards to predator management. What the hell does that mean? I have to use non-lethal means in a declared predator area when a coyote or a wolf is attacking our livestock or even a family member? More importantly, the Game and Fish already has science-based approaches to predator management and works with other government | See Appendix F for list of required design features. See Chapter 1.4 Planning Criteria for compliance with applicable laws and authorities |

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| | | agencies, including the BLM, to achieve a common goal with appropriate habitat balance with regards to wildlife and predators alike. Predator management is not the job of the Bureau of Land Management. | |
| 816.01 - General Wildlife | #13287-17 | We also support proposed prohibitions on wind development in raptor concentration areas and other sensitive habitats. These protections also should be extended to solar developments, as these have been shown to block or impede antelope migrations (Sawyer et al. 2022, Attachment 6). We offer the report Wind Power in Wyoming: Doing it Smart from the Start (Attachment 7) as a comprehensive blueprint for lands where wind power development should be excluded. Importantly, this report included as a Best Management Practice to keep big game seasonal habitats as "caution areas" rather than "exclusion areas" for wind development, pending scientific research to determine whether they should become exclusion areas. That scientific research has been completed, and these lands should also be treated as exclusion areas as a result of the finding that wind farm development results in large mammal avoidance. | A range of alternatives has been analyzed for renewable energy projects in Chapter 2 management actions 6100-6108. A range of alternatives for big game and renewable energy has been analyzed in Chapter 2 management action 4418. Analysis of impacts for actions in each alternative are found in chapter 4. |
| 816.01 - General Wildlife | #13287-30 | Herbivory by cattle and sheep on public lands removes forage otherwise available to native herbivores, and therefore leasing public land for livestock grazing necessarily reduces the population of native herbivores (from large hunted species down to small mammals and even insects) substantially. This means that the interests of the recreating public (both hunters and wildlife-watchers) are materially harmed when the federal government chooses to lease public lands for livestock production. A cow that grazes on public land eats as much forage as 2 elk, 6 mule deer, or 10 pronghorn (Ogle and Brazee 2009, Attachment 10). Given that desert elk (the Steamboat Mountain and Petition Herds) and mule deer (the Red Desert to Hoback migration and others) have high public profile and value, the significant loss of population numbers due to density-dependent competition with livestock is a factor that requires detailed analysis in the EIS, but has yet to receive adequate treatment. | A range of alternatives has been analyzed for fish and wildlife in Chapter 2 management actions 4400 - 4436, and for livestock grazing in Chapter 2 management actions 6400-6417. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13356-2 | The proposed alternatives for the Rock Springs Resource Management Plan is missing any mention of planning for bison restoration. Bison are not only a missing keystone species in the land management area, but are a low cost tool for soil health, native plant and wildlife diversity, carbon sequestration and riparian health. | Wild Bison restoration is outside of the scope of this document. See Chapter 1.4 Planning Criteria. |
| 816.01 - General Wildlife | #13542-35 | MA#4407. Alternative B. 2-64 How does the BLM intend to deal with pre-existing tailings and process water ponds regarding improving habitat quantity and quality for migratory bird species? More information is needed for facilities to assess foreseeable current and future impacts on the business of this requirement. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | See Chapter 1.4 Planning Criteria for valid and existing rights. See Executive Summary and 4.2.2 for adequacy of data and analysis. |
| 816.01 - General Wildlife | #13542-38 | MA#4427. Alternative B. 2-71 By seasonally closing vehicular traffic in crucial and important wildlife habitats and important periods, trona mines would not be allowed to operate vehicles at the facility a good portion of the year, nor would employees be able to travel to and from their work. The crucial winter range habitat data should be ground-truthed to clear up this confusion and exceptions should be allowed. Sisecam recommends working with WGFD and considering seasonal vehicular closures on a case-by- case basis for a more realistic approach. Please analyze in detail and disclose to the public the additional analysis and mitigation measures the agency intends to implement or require. | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13542-98 | Appendix T. T.1.3. Wildlife and Fisheries. T-20 The RMP states, "Mineral development activities would likely cause displacement of animals..." which is not necessarily true. Many underground mines, such as sodium leased areas, have very few or isolated surface disturbance activities, and allow animals to live and migrate through the leased areas. The impacts that mineral development activities could have on wildlife, regardless of whether from underground mining or surface-based solution mining, can be mitigated through best management practices. Please analyze and disclose to the public the scientific justification for any restrictions contemplated and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | See Executive Summary and 4.2.2 for adequacy of data and analysis. Impacts from solid mineral leasing, such as coal or trona, can be found in Chapter 4. |
| 816.01 - General Wildlife | #13668-1 | Management #7418 & 7419 Page 2-177 #7418 Expand the Greater Red Creek ACEC to include Sugarloaf Management Area and Salt Wells Management Area (468,170 acres, Table 2-12, Appendix V and Map 2-30). I am against any expansion of ACEC's in the Greater Red Creek area or expansion of any VRM 2. Expansion of ACECs and increasing restrictions (VRM 2 areas, no surface occupancy) would further limit the tools grazing could use to meet rangeland health objectives (fence, types of fence, placement of range improvements like wells, reservoirs, troughs, etc.). Rangeland health objectives are already in place to see if management is meeting ecology goals, so why do we need more restrictions when elk have increased to the point they are overgrazing the aspen clones to the point where they die off? If big game is thriving to the extent they are damaging their habitat, do they really need more protections than are there currently? | A range of alternatives has been analyzed for the Greater Red Cr. ACEC in Chapter 2.2.6 management actions 7418-7445. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13672-7 | Appropriate protections of big game crucial winter ranges and parturition areas are important. MA #4421 Alternative B for these areas imposes No Surface Occupancy (NSO) on fluid minerals, closes these areas to material sales, and closes these areas to all solid mineral (trona and coal) leasing. This is not necessary when field visits are made by BLM personnel with land users including project proponents or when project proponents present credible data that enable decisions to be made as to what seasonal protections are needed. MA #4421 Alternatives C and D have language that meets big game habitat needs while providing specific dates which allow | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternatives is found in chapter 4 |

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| | | land users to plan their activities, and on a case-by-case basis apply appropriate mitigation practices and obtain exceptions where no undue impacts to big game will occur. | |
| 816.01 - General Wildlife | #13751-128 | MA #4407 ALT B Maintain and improve habitat quantity and quality for migratory bird species of conservation concern to prevent, avoid, reduce, and/or mitigate adverse impacts to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities. Industry Position: Not Acceptable Reason: Because habitat quantity and quality are undefined there is no way to measure or attain this goal. ALT C Maintain habitat quantity and quality for migratory bird species of conservation concern to avoid, reduce, or mitigate adverse impacts to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities. Industry Position: Not Acceptable Reason: Because habitat quantity and quality are undefined there is no way to measure or attain this goal. ALT D Maintain or improve habitat quantity, functionality, and quality, on a case- by case basis, for migratory bird species of conservation concern consistent with regional or statewide bird conservation priorities. Require, on a case-by-case basis, pre- construction surveys by a qualified biologist for any project proposed to be implemented during the migratory bird nesting season, generally February 1 through August 31. If active/occupied nests are identified, construction activities in the immediate area will be halted, until it is determined that the nest is no longer active/occupied, due to events such as fledging, nest predation, or nest abandonment. Industry Position: Not Acceptable Reason: Because habitat quantity and quality are undefined there is no way to measure or attain this goal. Improving habitat quantity and functionality and quality must not be required. | A range of alternatives has been analyzed for migratory birds in Chapter 2.2.6, management action 4407. Analysis of impacts of actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13759-1 | Climate change is minimally addressed in the Rock Springs RMP. The majority of where climate change is mentioned in the document is in the Monetized Impacts of Greenhouse gases (GHG's) section. This seems to be where a detailed conversation of climate change begins and ends in the RMP. Addressing GHG's is important, but there are many other issues that should be considered in this management plan in the context of climate change, such as early snowmelt, drought, loss of habitat, wildfires, and water resources (EPA, 2016). I think that this RMP should describe more ways the RSFO can be proactive around these issues and explain how plans will be adaptive in the face of inevitable change. | See Executive Summary and 4.2.2 for adequacy of data and analysis. Air Quality impacts can be found in Chapter 4. |
| 816.01 - General Wildlife | #13779-10 | BLM states that "studies have documented deaths of avian and bat species from wind turbines, although the levels of collision and death vary in the scientific research (Cohn 2008; Madders and Whitfield 2006). Collision levels fluctuate based on habitat, terrain, elevation and even weather conditions (Madders and Whitfield 2006)." However, BLM then states "prediction of accurate bird or bat losses from wind development is currently not available."23 Again, BLM's science is severely outdated and its conclusions regarding wildlife collision impacts from wind energy facilities are as a result uninformed and deficient. | See Executive Summary and 4.2.2 for adequacy of data and analysis. A range of alternatives has been analyzed for renewable energy projects in Chapter 2 management actions 6100-6108. Analysis of impacts for actions in each of these alternatives is found in chapter 4. |
| 816.01 - General Wildlife | #13779-11 | Among the key scientific findings missing from BLM's analysis or management considerations: impacts to birds from wind energy are orders of magnitude lower than for buildings (250,000% lower), communications towers, and other anthropogenic causes of mortality24,25,26,27; eagle populations have remained stable or increased over the past decade28, 29 concurrent with increasing wind energy development (specifically, the USFWS reported in 2020 the bald eagle population has quadrupled since 2009 to 71,400 nesting pairs and 316,700 individuals30, and a 2022 study examining the cause of death for golden eagles in the western US attributed only 1% of fatalities to wind energy31, indicating wind energy is not having a significant impact on the population32); and targeted turbine curtailment is a powerful tool for reducing bat mortality at wind turbines33, although wind energy impacts on listed bat species are generally low (as evidenced by summaries of over 10034 and over 60035 post-construction monitoring studies) and not the reason bat species are listed36 or proposed for listing37,38. | See Appendix A for Best Management Practices and Design Features. A range of alternatives has been analyzed for renewable energy projects in Chapter 2 management actions 6100-6108. Analysis of impacts for actions in each of these alternatives is found in chapter 4. |
| 816.01 - General Wildlife | #13779-12 | wildlife conservation measures will be thwarted if we are unable to mitigate the worst impacts of climate change. BLM does not discuss the existential threat to many bird (and other) species posed by climate change. As the U.S. Fish and Wildlife Service itself has noted, "Because of climate change, some populations may decline, many will shift their ranges substantially, and still others will face increased risk of extinction."39 Audubon's Survival by Degrees analysis finds a warming scenario of 3.0 degrees Celsius above pre-industrial levels would put 389 North American avian species at risk of extinction.40 Audubon further notes by stabilizing carbon emissions and holding warming to 1.5 degrees Celsius, 76 percent of vulnerable species will be better off and nearly 150 species would no longer be vulnerable to extinction due to climate change. Wind energy is an essential solution to help reduce these risks from climate change. | A global climate analysis regarding impacts to bird species is outside the scope of this RMP document. See Section 1.4 for the Planning Criteria. |
| 816.01 - General Wildlife | #13841-1 | MA4427 Seasonal Vehicle closures should determined by the Wyoming Game and Fish on a as needed basis. | See FLPMA for information about BLM's authority to manage public lands. Additionally, a range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13851-1 | Management Action #4420. Page 2-68. We vaccinate our heifers and have not experienced a single Brucellosis outbreak in the 60+ years of ranching. So Alternative D is preferred because it appropriately defers consideration of potential grazing adjustments to meet conflicts, if any, with big game parturition, to the permit renewal process. It also allows for site-specific management with a flexible timeframe, while other alternatives require a specific timeframe. | A range of alternatives has been analyzed for big game parturition habitat in Chapter 2 management action 4420. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 816.01 - General Wildlife | #13865-21 | F. MA # 4427 The overlap of seasonal closures for vehicle travel in all alternatives of MA #4427 would block necessary travel and access for PacifiCorp. This includes areas that BCC is mandated to monitor as a permit requirement. Denying access to conduct monitoring by the seasonal closure of roads could put BCC in violation of its DEQ Land Quality Division Permit to Mine. These road closures would also limit reclamation activities of BBC and other PacifiCorp projects. Vehicle travel must be allowed when needed to access PacifiCorp's projects, power lines, and other assets year-round for O&M activities and during emergencies. The extended duration of seasonal closures is problematic because it narrows the window in which certain areas can be accessed and work performed. The cumulative closure period for all wildlife resources combined in MA #4427 is from November 15 to June 30 (for Alternative D) or July 31 (for Alternatives B and C), which leaves utilities with August 1 to November 14 to perform work. This is not sufficient time to complete necessary O&M or construction. In addition, closing vehicle traffic in raptor nest areas is contradictory for locations where raptors nest on utility infrastructure and can require nest management or other O&M work during the nesting season. Restricting access would prevent PacifiCorp from complying with its APP, company avian policies, and commitments to the USFWS that require timely retrofitting of poles with eagle or migratory bird mortalities. Likewise, PacifiCorp has agency mandated timeframes to respond to facility conditions. Failure to meet these timeframes puts the company at risk of substantial fines, regulatory noncompliance, and safety concerns. PacifiCorp recommends that the BLM adopt Alternative A under MA#4427, and allow vehicular travel when necessary. PacifiCorp also recommends that all seasonal buffers be waived for emergency work and time sensitive O&M or repairs. | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13865-51 | Prohibitions on motorized travel and topsoil sale areas may inhibit the timely closure and reclamation of CCR impoundments or landfills and increase negative environmental impacts to public lands in the subject area. Raw materials for cover would potentially need to be sourced from areas outside the DEIS and trucked long distances to the site. The increase in truck traffic on established roads will negatively impact wildlife and air quality in the subject area. | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2 management action 4427. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13865-69 | o "Inventory and monitor predator populations by project proponents." This stipulation is vague, fails to define 'predators', offers no explanation or justification for the stipulation, and does not provide a benefit to resources. Unless the purpose of a project is directly related to predators, such as an animal control project, there is no reason or a regulatory requirement to conduct predator monitoring. For these reasons, PacifiCorp recommends that this stipulation be removed as a RDF or BMP. | See management action #4 "Apply best management practices (BMP) to authorized BLM activities on a case-by-case basis," and Appendix A. |
| 816.01 - General Wildlife | #13870-1 | This study identified several pockets of small mammal populations that were considered rare within the planning areas but not considered threatened or endangered on a statewide basis. These populations included the Canyon Mouse (Cedar Canyon), Northern Flying Squirrel (Little Mountain) and the Merriam's Shrew (White Mountain) The report recommended special management for these populations. Please see the quote below:2 Because of this report, I recommend that the BLM, within the Rock Springs Final RMP, identify management strategies that could protect these isolated pockets of mammals. These strategies could range from establishing ACECs to stipulating development management actions that would protect essential habitats.If the BLM does not protect these species, one poorly planned management action could wipe out the entire population for one species. For example, the BLM could exterminate the entire Little Mountain Northern Flying Squirrel population by one unfortunate fire or timber management action. To avoid this, please consider protections for these isolated pockets of rare small mammals within the BLM Rock Springs Field Office Final RMP. | See Chapter 3.8 for a description of Special Status species for the Rock Springs Field Office. None of the listed species here are species of concern identified in Section 3.8, nor were they identified in the planning criteria for analysis (See Section 1.3). Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |
| 816.01 - General Wildlife | #13892-15 | when the BLM proposes (Page 2-69) to "Prohibit surface disturbing or disruptive activities on big game crucial winter ranges, parturition areas, migration corridors and transitional habitats, as identified by WGFD" it means any human use for more than one hour in a 24-hour period within these areas would be prohibited. That's what the DEIS says, meaning: People would be prohibited from camping within these habitats during that time. Sheepherder camps would be prohibited. Anything that involved people being present for more than one hour would be prohibited. But this time the BLM noted the restriction would apply in these habitats as identified by the Wyoming Game & Fish Department. But the BLM did not include maps of these areas in the DEIS | See Glossary for a definition of 'casual use' and for 'surface disturbing activities' and 'surface disturbance'. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.01 - General Wildlife | #13892-17 | "For actions other than those taken for human health and safety, regulatory compliance or emergency, an activity is 'disruptive' if the activity would require people and/or the structure or activity to be present in these habitats for a duration of more than one hour during any one 24-hour period during the applicable season in the site- specific area." That is a stunning expansion of the meaning of a disruption, again without citing a scientific basis. | See Glossary for a definition of 'casual use' and for 'surface disturbing activities' and 'surface disturbance'. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.01 - General Wildlife | #13908-2 | RMPs typically prohibit activity in big game crucial ranges and parturition areas during the seasonal stipulation period first, and then allow for it on a case-by-case basis through the exception/waiver/modification process. The approaches to protect these vital areas vary among alternatives in the current draft Rock Springs RMP and have the potential for significant negative impacts to big game. The Department recommends the final preferred alternative match surrounding Field Office RMPs and require avoidance during the seasonal stipulation period, with a review process to consider exceptions on a case-by-case basis. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |

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| 816.01 - General Wildlife | #13908-13 | 4407 B Add language currently provided in Alternative D. Require, on a case-by-case basis, pre-construction surveys by a qualified biologist for any project proposed to be implemented during the migratory bird nesting season, generally February 1 through August 31. If active/occupied nests are identified, construction activities in the immediate area will be halted, until it is determined that the nest is no longer active/occupied, due to events such as fledging, nest predation, or nest abandonment. | A range of alternatives has been analyzed for migratory birds in Chapter 2.2.6, management action 4407. Analysis of impacts of actions in each of the alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13908-15 | 4408 D Allow water developments in big game crucial winter range and parturition areas on a case-by-case basis subject to adequate mitigation of impacts following BLM mitigation policies. Include consultation with WGFD. Allow water developments in big game crucial winter range and parturition areas on a case-by-case basis in consultation with WGFD and subject to adequate mitigation of impacts following BLM mitigation policies. | A range of alternatives have been analyzed for water developments in Chapter 2, management action 4408. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.01 - General Wildlife | #13908-17 | 4419 D Manage, to the extent possible, wildlife habitat to provide forage to support the WGFD Strategic Habitat Plan in the attainment of big game herd unit objectives, strategic population plans, and aquatic basin management plan objectives. Strategic Habitat Plan is now the Statewide Habitat Plan. Manage, to the extent possible, wildlife habitat to provide forage to support the WGFD Statewide Habitat Plan in the attainment of big game herd unit objectives, strategic population plans, and aquatic basin management plan objectives. | See updated text |
| 816.01 - General Wildlife | #13908-21 | 4421 D Allow surface disturbing activities on big game crucial winter ranges and parturition areas subject to adequate mitigation of impacts following BLM mitigation policies. This is the core of our concern expressed in the Wildlife Environmental Review letter. The language needs to make clear that surface disturbing/disruptive activities are prohibited but may be approved via an excpetion process and in consultation with WGFD. Prohibit surface disturbing or disruptive activities on WGFD-identified big game crucial winter ranges from November 15-April 30 and parturition areas from May 1-June 30. Consider exceptions on a case-by- case basis if impacts will not adversely impact the population being protected or they will benefit the resource values. Exception requests will be reviewed in consultation with WGFD. | See Appendix B Exceptions, Modifications and Waivers Table B-1 |
| 816.01 - General Wildlife | #13908-23 | 4425 B Manage big game crucial winter range and parturition habitat for the plant condition and composition that would be most ecologically beneficial for the identified species while also considering the habitat of other species. Avoid, where possible, single wildlife species management. More closely match Alternative D language so habitat condition is quantifiable. Manage big game crucial winter range and parturition habitat in a manner that meets the Wyoming Land Health Standards, and the plant condition and composition that would maintain a functional habitat for the benefit of all herbivores. | A range of alternatives has been analyzed for big game crucial winter range and parturition habitat in Chapter 2 management action 4425. Analysis of impacts for actions in each alternative can be found in Chapter 4. |
| 816.01 - General Wildlife | #13910-4 | I believe BLM should have the ability to reimburse the permittees for what is needed in plans for habitat projects. Adding more "riders" for protecting projects after they are done should be a big factor for consieration. | Analysis of components of specific projects is outside the scope of this document. See Chapter 1.3 Planning Issues and 1.4 Planning Criteria. |
| 816.01 - General Wildlife | #13910-5 | Perhaps "habitat committees" should be set up to aid in gaining more information and pursuing collaborative efforts. More outside opinions should be considered, rather than just those who have permits. | See Chapter 1 Purpose and Need for description of the is planning effort. See Chapter 1.3 and 1.4 for Planning issues and Criteria |
| 816.01 - General Wildlife | #13940-7 | Management Action #4408 under Alternative B allows "water development only if wildlife habitat and resource conditions would be improved or maintained." Id. at 2-64. The BLM needs to look at water developments for other uses, such as livestock grazing, rather than from just a wildlife habitat and resource conditions perspective. If the BLM only considers what is good for wildlife, then they are ignoring their management mandates for other resources. | A range of alternatives has been analyzed for water developments in Chapter 2 management action 4408. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.01 - General Wildlife | #13940-8 | Management Action #4420 under Alternative B would prohibit livestock grazing in big game parturition habitat from May 1 through June 30. Id. at 2-68. Livestock grazing has always been allowed in pastures containing wildlife and existing Allotment Management Plans do not provide for this limitation. The BLM must first determine that, pursuant to the Wyoming Land Health Standards, grazing is a causal factor in reducing forage within parturition habitat before reducing and/or limiting livestock grazing. Handbook 4180-1, pp. III-12 - III-14 (Jan. 19, 2001). | A range of alternatives has been analyzed for management of big game parturition in Chapter 2.2.6 management action 4420. Analysis of impacts of each of these alternatives is found in Chapter 4. |
| 816.01 - General Wildlife | #13940-9 | Management Action #4421 under Alternative B would "[p]rohibit surface disturbing or disruptive activities on big game crucial winter ranges, parturition areas, migration corridors and transitional habitats, as identified by WGFD." DEIS at 2-69. Again, the prohibition of "surface disturbing or disruptive activities" would also apply to any development of specific range improvements that may also support wildlife, such as water improvements. It is also unclear whether this restriction only applies seasonally versus year long. JRB opposes this management action as it could impact livestock grazing operations as well as prevent any other type of development. For the same reason, JRB objects to Management Action #4424. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.01 - General Wildlife | #13943-5 | The language in alternative D Management Action #4424 gives strong protections to WGFD designated migration corridors and allows the department flexibility on where development is sited. The BLM should consult with WGFD early and often to appropriately site development projects outside of designated migration corridors. To emphasize WGFD involvement, we request the following modifications be made for MA #4424 in alternative D. o The language in this Management Action states that the BLM will work with project proponents to create a conservation plan. We request that the BLM also work in partnership with WGFD to develop a conservation plan from the | A range of alternatives has been analyzed for designated big game corridors in chapter 2, management action 4424. Analysis of impacts for actions in each alternative is found in chapter 4. |

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| | | outset. The management action should recognize WGFD's authority to manage wildlife and the important role the agency plays to inform land management decisions for the health of that wildlife on state and federal lands in Wyoming. | |
| 816.01 - General Wildlife | #13960-1 | Under plan B, predator control must be done by non-lethal methods only. This might work in a small, fenced in area, but not in a 3.6 million acre, mostly unfenced area. The result of this policy will increase the number of predators in the area and will cause more damage to the livestock industry as well as the wildlife numbers and recreational hunting. | A range of alternatives has been analyzed for animal damage control activities in Chapter 2.2.6 management action 4211. |
| 816.01 - General Wildlife | #14022-11 | MA#4411, SCCD has seen across not only the RSFO but most of BLM managed lands that exclosures are put in to address an issue then go unmaintained, eventually causing a resource issue themselves. BLM does not have the man power to maintain the range improvements that they currently have. SCCD feels that adding workload is not wise on the BLM's behalf. SCCD feels that in most situations a cooperative solution with grazing permittees can help solve the issue without adding exclosures to the landscape. | A range of alternatives has been analyzed for management of special management and riparian management exclosures in Chapter 2.2.6 management actions 4411 and 6407. |
| 816.02 - Big Game | #12-1 | I have no problem with the 15% excluded for deer and antelope protection from mineral extraction production. | Analysis of impacts to pronghorn and mule deer for actions In each alternative is found in Chapter 4 |
| 816.02 - Big Game | #42-1 | Returning the bison and limiting grazing on public lands to the extent that bison can coexist & reestablish ancestral migratory access is necessary. | Wild Bison restoration is outside of the scope of this document. See Chapter 1.4 Planning Criteria. |
| 816.02 - Big Game | #65-1 | you've opted to include animal data from 2005.... We're coming off of one of the worst winter kill years on record. So the numbers you have for deer and antelope are completely inaccurate. | See Executive Summary and 4.2.2 for adequacy of data and analysis. |
| 816.02 - Big Game | #189-1 | If BLM is so concerned about "crucial winter range" for ungulates, BLM should stop the Chokecherry/Sierra Madre wind farms which are smack dab on the Wyoming mule deer winter range | The referenced wind farms are outside of the planning area and are outside of the scope of the document. See Chapter 1..2 for Purpose and Need for this document |
| 816.02 - Big Game | #4026-7 | Chapter 3.7.1 Wildlife and Fisheries Habitat, Wildlife. I feel this chapter should also include some language on big game migration routes and their importance in maintaining wildlife populations. The Wyoming Migration Initiative at the University of Wyoming has identified a number of significant wildlife migration routes within the district. That initiative has reported (Sawyer et. al, 2013) both impermeable (housing developments, Interstate highways, intense industrial development) and semi-permeable (roads, fences, dispersed industrial development) barriers can constrain the possible routes and ranges used by migrating animals. Semi-permeable barriers can impact the functionality of migration routes through increased detouring, increased rates of movement, and reduced stopover ability. The negative impacts from semi-permeable barriers, however, can be reduced through specific management actions. | See updated text in Chapter 3 regarding big game migration |
| 816.02 - Big Game | #4026-16 | Chapter 4.7.1 Wildlife and Fisheries, Assumptions. I recommend an additional assumption be made in this chapter as related to wildlife migration routes. This assumption could be worded: "Impermeable and semi-permeable barriers to wildlife migration can constrain the routes and ranges of migrating animals. The impacts of semi-permeable barriers to migrating wildlife can be reduced through specific management actions." | The assumptions listed in Chapter 4 apply to the analysis presented in the document. See Executive Summary and Chapter 4.2.2 for adequacy of assumptions, data an analysis |
| 816.02 - Big Game | #13210-65 | 4420 Alternative D Evaluate and adjust grazing schedules, at the time of permit renewal, if any conflicts with parturition areas exist. This management action supports agreements in principle # 4 and # 5. Alterative D is preferred because it appropriately defers consideration of potential grazing adjustments to meet conflicts, if any, with big game parturition, to the permit renewal process. Alternative D allows for site specific management with a flexible timeframe, while other alternatives require a specific timeframe. | A range of alternatives has been analyzed for livestock grazing in big game parturition in Chapter 2 management action 4420. Analysis of impacts from the actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13287-12 | The Rock Springs RMP should identify and protect wildlife migration corridors. Important migration corridors in the Field Office include the Red Desert - to - Hoback mule deer migration corridor, and the Path of the Pronghorn migration corridor, which extends from Jackson Hole to the environs of Interstate 80. The Red Desert - to - Hoback migration route likely would have extended southward beyond Interstate 80, but is interdicted by the highway and woven-wire fences designed to keep animals off the roadway. The proposed corridor (DEIS at Map 2-30) should be expanded slightly at its southern terminus to encompass mule deer wintering habitats along the Interstate. The BLM should also designated the Path of the Pronghorn migration route as an ACEC, like Red Desert-to-Hoback, but at present it is not designated for special protections. DEIS at Map 2-30. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555-7562. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13412-2 | The Red Desert to Hoback migration corridor spans 150 miles and crosses private land, state trust land, United States National Forest land, and public land managed by the BLM. This migration corridor is the longest known mule deer migration corridor in the United States and is traveled by approximately 5,000 deer biannually. Alternative B would designate a new ACEC called the Big Game Migration Corridor ACEC. This ACEC would contain significant portions of the Red Desert to Hoback migration corridor. As I am following the the Select Committee on Federal Natural Resource Management (Committee) of the Wyoming Legislature, the Committee heard testimony from Wyoming's Game and Fish Department at our meeting on October 6, 2023 that Alternative B's inclusion of the Red Desert to Hoback migration corridor within the ACEC would be detrimental to the Wyoming Game and Fish Department's management of wildlife populations within the migration corridor. I support the hard work the Wyoming Game and Fish Department has put into migration corridors. I am committed to conserving | A range of alternatives has been analyzed for the big game migration ACEC in Chapter 2 management actions 7555-7562. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |

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| | | these vital migration corridors to help maintain wildlife populations. I believe that designating migration corridors within ACEC is not in the best interest of the state or the wildlife. | |
| 816.02 - Big Game | #13542-34 | MA#4404. Alternatives B and C. 2-63 The data used to develop the seasonal restrictions, surface use, and rehabilitation standards has not been ground truthed. The crucial winter range for antelope shows that a large section of a tailings pond and the surface facilities, buildings, parking lots, roadways, etc. at Sisecam Wyoming LLC are crucial winter range, when they provide no habitat for antelope. When an on-lease activity is authorized by the BLM for an underground mineral lease, seasonal restrictions apply to it regardless of location (i.e., disturbance within the footprint of the existing manufacturing facility). Data used to develop these restrictions should be updated and exceptions should be allowed to be granted for cases where the actual surface conditions do not warrant such restrictions. Without exceptions, these seasonal restrictions largely impact construction projects and upgrades at new and existing facilities, only allowing a few months of construction each year. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management actionand develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | See Glossary for a definition of 'crucial winter range'. A range of alternatives has been analyzed for surface use and seasonal restrictions in Chapter 2.2.6 management action 4404. Analysis of impacts for actions in each alternative is found in Chapter 4. Crucial Winter Range and other important big game habitats are designated by WGFD, see Chapter 1.4 Planning Criteria for applicable criteria |
| 816.02 - Big Game | #13542-36 | MA#4421. Alternative B. 2-69 The data used to develop the big game crucial winter ranges, parturition areas, migration corridors and transitional habitats has not been ground-truthed. The crucial winter range for antelope shows that a large section of a tailings pond and the surface facilities, buildings, parking lots, roadways, etc. at Sisecam Wyoming LLC are crucial winter range, when they provides no habitat for antelope. When an on-lease activity is authorized by the BLM for an underground mineral lease, seasonal restrictions apply to it regardless of location (i.e., disturbance within the footprint of the existing manufacturing facility). Data used to develop these restrictions should be updated and exceptions should be allowed to be granted for cases where the actual surface conditions do not warrant such restrictions. Without exceptions, these seasonal restrictions largely impact construction projects and upgrades at new and existing facilities, only allowing a few months of construction each year. In addition, closing all of these areas to solid mineral leasing and mineral material disposal, including trona, makes little difference in conservation efforts because these areas are mostly subsurface facilities with little to no surface impacts that could affect big game. Under Alternative B, by closing these areas to mineral material sales and disposals, the BLM would significantly limit potential areas for trona mines to place tailings back underground in previously mined out areas. Wyoming Department of Environmental Quality Land Quality Division Noncoal Chapter 3 Section 2(h)(ii) states that the State of Wyoming prefers that mines place tailings underground. By closing off significant portions of lands that could be used for tailings storage, the BLM's RMP is conflicting with the preference of DEQ LQD. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. Additionally, please analyze and disclose to the public the BLM's reasons for not following the regulations and recommendations of the expert state agency on this matter. | See Glossary for a definition of 'crucial winter range' and 'parturition area'. A range of alternatives has been analyzed for big game crucial winter range in Chapter 2 management action 4421. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. Crucial Winter Range, Parturition areas and big game Migration corridors are designated by WGFD.. |
| 816.02 - Big Game | #13542-37 | MA#4424. Alternatives A and D. 2-70 Define who will be identifying the big game corridors for the implementation of the RMP in the Rock Springs Field Office administered areas, as several sources have conflicting migration corridors, specifically for mule deer (Wyoming Game and Fish Department, WesternMigrations.net, etc.). Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424. Alt D identifies that the corridors are designated by WGFD. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for updated text. |
| 816.02 - Big Game | #13542-51 | Section 3.7.1. Wildlife and Fisheries Habitat. Mule Deer. 3-7 The reference used for mule deer populations was from 2005, 18 years ago. Why did the BLM choose to reference such aged data when there have been recent mule deer studies from the Wyoming Game and Fish Department? | See Executive Summary and Chapter 4.2.2 for adequacy of assumptions, data an analysis |
| 816.02 - Big Game | #13542-68 | Literature Cited. Sawyer, H. 2014a and 2014b. LC-16 These studies from 2014 are 9 years old. The Wyoming Game and Fish Department has several studies specifically focused on mule deer and other big game that are more recent and could have been used instead of the older data. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See Executive Summary and Chapter 4.2.2 for adequacy of assumptions, data an analysis |
| 816.02 - Big Game | #13542-69 | Literature Cited. Sawyer, H. and M.J. Kauffman. LC-16 This study is from 2011 and is 12 years old. The Wyoming Game and Fish Department has several studies specifically focused on mule deer and other big game that are more recent and could have been used instead of the older data. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See Executive Summary and Chapter 4.2.2 for adequacy of assumptions, data an analysis |
| 816.02 - Big Game | #13542-76 | Appendix B. M#7466. Alternative B. 106 The crucial big game winter ranges need to be ground truthed. The current antelope crucial winter range includes areas of active tailings ponds and soda ash manufacturing facilities, buildings, paved parking lots, roads, etc., that are not habitat for antelope, let alone crucial habitat. If the current dataset is used and Alternative B is selected, the RMP states that no exceptions, waivers, or modifications will be granted. This does not make sense when the data being used does not accurately reflect current habitat available for big game. Please analyze and disclose to the public the scientific justification for any restrictions contemplated | WGFD designates Big Game Crucial Winter Ranges. See Chapter 1.4 Planning Criteria for consultation with other agencies, including WGFD. |

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| | | under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | |
| 816.02 - Big Game | #13556-1 | Big game migration corridors also need protections and their locations are a matter of research and on-going monitoring by WGF. Accurate evaluation of the impact of these migration corridors in very difficult until WGF releases the latest migration corridors map. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for updated text. |
| 816.02 - Big Game | #13574-1 | MA #4421 Alternatives C and D have language that meets big game habitat needs while providing specific dates which allow land users to plan their activities, and on a case-by-case basis apply appropriate mitigation practices and obtain exceptions where no undue impacts to big game will occur. Big game migration corridors also need protections and their locations are a matter of research and on-going monitoring by WGFD. Accurate evaluation of the impact of these migration corridors is very difficult until WGFD releases the latest migration corridors map. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13665-13 | As discussed above, an area may meet the criteria for a "relevant" "fish or wildlife resource" if it includes "habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity." 43 C.F.R. § 1610.7-2(a); Manual at § 1613.11(A)(2). Mule deer and other large game species (which are identified in the EIS at 3-7-3-8) are not endangered, sensitive, or threatened.9 In fact, BLM's EIS identifies federally listed wildlife in the planning area and "Wyoming BLM Sensitive Wildlife Species" that BLM has determined "require special management consideration to avoid potential future listing under the ESA." See id. at 3-10-3-12. Notably absent from either list are mule deer and other large game species. Nonetheless, BLM contends that it has evaluated the creation of the Big Game Migration Corridor ACEC "based on a citizen propos[al]"10 and that the ACEC meets the criteria for a "relevant" fish-and-wildlife resource simply because the area is a "significant migration corridor for large game species." Id. at C-62.11 That is patently insufficient for ACEC designation: big game are not a special status species and do not require special management consideration. | See Appendix C for evaluation of nominated ACECs and the relevance and importance criteria. A range of alternatives has been analyzed for big game migration corridor ACEC in Chapter 2 management actions 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13665-14 | Indeed, BLM fails entirely to explain why new special management for the big-game migration corridor is necessary. See id. at 2-210-2-211; C-62-C-63. BLM does not address why existing seasonal restrictions and surface-occupancy stipulations (in existing leases and following the Wyoming Game and Fish Department's guidance) are insufficient to protect the big-game migration areas. | See Appendix C for evaluation of nominated ACECs and the relevance and importance criteria. A range of alternatives has been analyzed for big game migration corridor ACEC in Chapter 2 management actions 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13665-15 | The recommendation also indicates that fences and other potential impediments should not be constructed. Id. Overall, as this guidance demonstrates, the Wyoming Game and Fish Department recognizes that oil-and gas development can occur within big-game migration corridors with a few limited restrictions. In managing wildlife habitat, the federal government should defer to the state's management prescriptions. As the D.C. Circuit explained, in enacting FLPMA, Congress "carefully and explicitly" "assigned the states the primary responsibility of management of wildlife programs within their boundaries." Defenders of Wildlife v. Andrus, 627 F.2d 1238, 1248 (D.C. Cir. 1980). | See Section 1.4 for the Planning Criteria, including compliance with FLPMA. See Appendix E for a list of laws and regulations that are applicable to this RMP. |
| 816.02 - Big Game | #13672-7 | Appropriate protections of big game crucial winter ranges and parturition areas are important. MA #4421 Alternative B for these areas imposes No Surface Occupancy (NSO) on fluid minerals, closes these areas to material sales, and closes these areas to all solid mineral (trona and coal) leasing. This is not necessary when field visits are made by BLM personnel with land users including project proponents or when project proponents present credible data that enable decisions to be made as to what seasonal protections are needed. MA #4421 Alternatives C and D have language that meets big game habitat needs while providing specific dates which allow land users to plan their activities, and on a case-by-case basis apply appropriate mitigation practices and obtain exceptions where no undue impacts to big game will occur. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13702-7 | MA 4421 Alternative B- closes these areas to material sales and closes these areas to all solid mineral (trona and coal) leasing due to No Surface Occupancy. This is not acceptable. Big game migration corridors also need protections, and their locations are a matter of research and on-going monitoring by WGFD. Accurate evaluation of the impact of these migration corridors is very difficult until WGFD releases the latest migration corridors map. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13702-15 | The BLM should defer to the Wyoming Game & Fish Department (WGFD) guidelines for surface disturbing activities in big game crucial winter habitat and parturition areas. | See Chapter 1.4 Planning Criteria for preliminary planning criteria |
| 816.02 - Big Game | #13720-14 | Existing leases with valid lease rights can be drilled with submittal of an Application for Permit to Drill (APD) right now. Map A shows currently-active, BLM oil and gas leases that intersect the Red Desert to Hoback mule deer migration corridor. If developed, these leases have the potential to sever the mule deer migration, perhaps forever. Given the abundance of oil and gas leases active and available for development today, but not utilized by operators, it makes sense to allow withdrawals from mineral location to help protect and preserve valuable wildlife habitats and other important natural resources managed by the BLM. | See Chapter 1.4 Planning Criteria for valid and existing rights. A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13751-81 | MA #4421 Alternative B for these areas imposes No Surface Occupancy (NSO) on fluid minerals, closes these areas to material sales, and closes these areas to all solid mineral (trona and coal) leasing. This is not acceptable. MA #4421 Alternatives C and D have language that meets big game habitat needs while providing specific dates which allow land users to plan their activities, and on a case-by-case basis apply appropriate mitigation practices and obtain exceptions where no undue impacts to big game will occur. Big game migration corridors also need | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |

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| | | protections and their locations are a matter of research and on-going monitoring by WGFD. Accurate evaluation of the impact of these migration corridors is very difficult until WGFD releases the latest migration corridors map. | |
| 816.02 - Big Game | #13751-82 | #4424 Alternative B imposes no surface occupancy (NSO) to fluid minerals, closes areas to mineral material sales, and closes areas to all solid mineral leasing. This alternative is unacceptable because it has high potential to shut down a large amount of mineral leasing which will have a broad negative economic impact. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. Socioeconomic impacts for all four alternatives can be found in Chapter 4 and Appendix N. |
| 816.02 - Big Game | #13751-83 | MA #4424 Alternatives C and D, though not acceptable on their own, have acceptable language that would allow for surface occupancy with protective measures and mitigation practices that will protect corridors and migrating big game. These would be worked out on a case-by-case basis in consultation with WGFD and BLM. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424. |
| 816.02 - Big Game | #13751-129 | MA #4419 ALT B Manage wildlife habitat to provide forage to support the WGFD 2009 (or subsequent approved) Strategic Habitat Plan in the attainment of big game herd unit objectives, strategic population plans, and aquatic basin management plan objectives. Consider habitat capability and availability during coordination with WGFD for changes to plan objectives. Industry Position: Not acceptable Reason: Industry supports WGFD herd unit objectives and population plans but habitat capability and availability are subjective enough to lead to NSOs where appropriate mitigation would provide adequate habitat protection. ALT C Manage wildlife habitat, to the extent possible, to provide forage for all resources. Consider habitat capability and availability during coordination with WGFD for changes to plan objectives. Industry Position: Not acceptable Reason: Industry supports WGFD herd unit objectives and population plans but habitat capability and availability are subjective enough to lead to NSOs whereas appropriate mitigation would provide adequate habitat protection. | A range of alternatives has been analyzed for wildlife habitat to support WGFD strategic plans in Chapter 2 management action 4419. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13751-130 | MA #4421 ALT A In the JMH planning area, disruptive activities would be prohibited in big game crucial winter range between November 15 and April 30. Seasonal limitations may be excepted, provided criteria in Appendix B can be met and appropriate mitigation can be implemented (as determined by the BLM). Mitigation of adverse effects (e.g., noise and traffic) on all habitats would be determined and applied on a case- by-case basis. Steamboat Mountain ACEC is closed to motor vehicle use from May 10 to July 1 for crucial birthing habitat for deer and elk. Industry position: Acceptable but applicable to JMH so another alternative is needed. Alternative B Prohibit surface disturbing or disruptive activities on big game crucial winter ranges, parturition areas, migration corridors and transitional habitats, as identified by WGFD. Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing. Steamboat Mountain ACEC is closed to motor vehicle use from May 1 to June 30 for crucial birthing habitat for deer and elk. Industry position: Not acceptable Reason: Areas within the KSLA should not be closed to trona leasing. Alternative C Restrict surface disturbing and/or disruptive activities in big game crucial winter range between November 15 and April 30. Restrict surface disturbing and/or disruptive activities in big game birthing areas between May 1 and June 30. Grant exceptions if impacts could be mitigated in accordance with exception criteria (see specific exception/waiver/modification criteria, Appendix B). Determine and apply mitigation of adverse effects (e.g., noise and traffic) on all habitats. Steamboat Mountain ACEC is closed to motor vehicle use from May 1 to June 30 for crucial birthing habitat for deer and elk. Industry position: Acceptable Reason: Specific dates enable planning and management. This should also enable exceptions to be considered case by case, site-specific, and project-specific. Alternative D Allow surface disturbing activities on big game crucial winter ranges and parturition areas subject to adequate mitigation of impacts following BLM mitigation policies. Avoid disruptive activities in big game crucial winter range between November 15 and April 30. Avoid disruptive activities in big game parturition areas between May 1 and June 30. Grant exceptions if impacts could be mitigated in accordance with exception criteria (see specific exception/waiver/modification criteria, Appendix B). Determine and apply mitigation of impacts (e.g., noise and traffic) on all habitats and habitat functionality. The Elk Parturition area within the Steamboat Mountain ACEC is closed to motor vehicle use from May 1 to June 30 for crucial birthing habitat for deer and elk. Industry position: Not acceptable Reason: Language is mostly acceptable, but modifications are recommended. MA #4422 NOT ACCEPTABLE SEE 4421 | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13751-131 | MA #4424 ALT B Identify and preserve wildlife species migration and travel corridors. Prohibit surface- disturbing activities within ½ mile of big game migration corridors to avoid constriction of current or future identified big game corridors. Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing. Industry position: Not acceptable. Reason: Trona leasing and development should not be closed in the KSLA. This alternative would shut down a large amount of trona leasing and development in the KSLA. Migration corridors are hard to evaluate until WGFD releases latest migration corridors map. ALT C Restrict, on a case by case basis, surface disturbing activities within identified wildlife migration corridors. Industry position: Not acceptable. Reason: Industry recognizes the necessity for protections for wildlife migration corridors. Development of surface facilities needed for trona production in the KSLA should be allowed with appropriate protective measures to be determined case by case. | A range of alternatives has been analyzed for wildlife habitat to support WGFD strategic plans in Chapter 2 management action 4419. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13751-132 | MA #4426 ALT A Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species. This would be accomplished through controlled timing and sequencing of federal coal leasing | A range of alternatives has been analyzed for big game crucial winter range in Chapter 2 management action 4426. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |

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| | | and development in these areas. For example, satisfactory abandonment and adequate reclamation of mined lands in big game crucial winter ranges and birthing areas would be required before additional federal coal leasing and development is initiated in the same crucial winter ranges and birthing areas. Industry position: Not acceptable. Reason: A mining and reclamation schedule that allows for the orderly and environmentally sound development of the coal reserve is developed by the operator and reviewed and approved by WDEQ-LQD in the operator's mine permit. WDEQ-LQD has primacy, WGFD and BLM have consultation, and USOSMRE has oversight. Alternative B Close big game crucial winger ranges and parturition areas to further consideration for federal coal leasing and development. Industry position: Not acceptable. Reason: The need to protect big game crucial winter range and parturition areas is respected. To close these areas completely is overly restrictive. Allowance should be made for the orderly development of the coal resource through a mining and reclamation schedule reviewed and approved by WDEQ-LQD. Reclamation should be timely as the coal is mined and return the functionality of these habitats. Alternative C Open big game crucial winter ranges and parturition areas for further consideration for coal leasing and development. Maintain a balance between coal leasing and development and maintaining adequate levels of these habitats. Prevent significant adverse impacts to these habitats. Open big game crucial winter ranges and parturition areas to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats. Prevent significant adverse impacts to important big game species through controlled timing and sequencing of federal coal leasing and development in these areas. Industry position: Not acceptable. Reason: Most of this language is acceptable but "adverse" impacts is open to interpretation and open-ended. | |
| 816.02 - Big Game | #13751-133 | MA #4427 ALT A Vehicular travel in crucial and important wildlife habitats and during crucial and important periods (strutting grounds, spawning beds, big game ranges, calving/fawning periods, etc.) would be restricted seasonally, as necessary. Industry position: Not acceptable. Reason: The need for protective measures is accepted. Allowance should be made for determination of protective measures case by case that protect the wildlife resource and allow for access to surface facilities needed for trona production in the KSLA. ALT B Seasonally close vehicular travel in crucial and important wildlife habitats and during crucial and important periods (big game crucial winter ranges 11/15-4/30, deer parturition areas 5/1-6/30, elk calving areas 5/1-6/30, moose calving areas 5/1- 6/30, raptor nesting areas 2/1-7/31). See Appendix J. Industry position: Not acceptable. Reason: This alternative applies the season and distance restrictions in Appendix J. Appendix J Alternative B has a 2-mile restriction on raptors. Two miles exceeds USFWS guidance. ALT C Limit vehicular travel to designated roads and trails in crucial and important wildlife habitats and during crucial and important periods (big game crucial winter ranges 11/15-4/30, deer parturition areas 5/1- 6/30, elk calving areas 5/1-6/30, moose calving areas 5/1-6/30, raptor nesting areas 2/1-7/31). Industry position: Not acceptable. Reason: Limitation to "designated roads" potentially restricts access to surface facilities that are needed for trona production in the KSLA. Allowance is needed to develop protective measures case by case in consultation with USFWS and BLM. ALT DSeasonally close, on a case-by-case basis, vehicular travel in designated crucial winter ranges and parturition areas during key periods (big game crucial winter ranges 11/15-4/30, big game parturition areas 5/1- 6/30). Exceptions will be granted for administrative use. See Appendix J. Industry position: Not acceptable. Reason: Appendix J Alternative D contains some distance restrictions that exceed USFWS guidance. | It should be noted that Alternative A is the existing management plan that has been in place since 1997. A range of alternatives has been analyzed for big game crucial winter range in Chapter 2.2.6 management action 4427. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13775-3 | Categorical prohibition on surface disturbance should be replaced with limitations within specific timelines which give predictability and certainty to operators. Further, there should be exceptions, waivers, or modifications that can be utilized for applicable cases. BLM-WY's current management practices under Alternative A already utilizes these concepts via predictable seasonal limits in MA#4421 in combination with exceptions, waivers, and modifications. BLM- WY should take the approached used in MA#4421 - which is confined to the Jack Morrow Hills Planning Area - and apply it to the entire planning area as appropriate. | A range of alternatives has been analyzed for big game crucial winter range in Chapter 2.2.6 management action 4421. Exceptions, modifications and waivers are analyzed in multiple alternatives for the planning area. Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13783-16 | BLM proposes in Alternative B to put all areas newly closed to oil and gas leasing off limits to surface occupancy or disturbance to protect "important habitats." Draft EIS at 2-68 (MA # 4417). BLM also proposes to replace big game seasonal restrictions with a year-round prohibition on surface disturbance in big game crucial winter range, parturition areas, migration corridors and transitional habitats, as identified by the Wyoming Game and Fish Department. EIS at 2-69 (MA # 4421). In essence, all important big game habitats would be off limits to surface uses as part of oil and gas development. BLM does not explain why current seasonal restrictions are inadequate to protect wintering, calving, or migrating game animals. Moreover, BLM's proposal to foreclose other surface uses outright in these habitats is contrary to Wyoming Game and Fish Department management recommendations. | A range of alternatives has been analyzed for big game crucial winter range in Chapter 2.2.6 management actions 4417 and 4421 . Analysis of impacts of each of the actions in these alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13783-17 | Here, Wyoming has applied conservative approaches to managing big game throughout the State and within the Rock Springs planning area, including seasonal drilling restrictions. For instance, the Wyoming Game and Fish's Recommendations for Development of Oil and Gas Resources Within Important Wildlife Habitat, Version 6.0, Table 1 (Apr. 2010), recommends seasonal closures, rather than wholesale exclusion areas, in crucial big game habitat. BLM's proposal to override the State's balanced wildlife management scheme with blanket restrictions on all new surface uses in designated habitats flies in the face of multiple use management and the federal government's FLPMA obligation to follow the State's lead on wildlife protection | A range of alternatives has been analyzed for management of fish and wildlife and their habitats in Chapter 2.2.6 management actions 4400-4436. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |

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| 816.02 - Big Game | #13811-9 | BLM further proposes to "[p]rohibit surface-disturbing activities within ½ mile of big game migration corridors to avoid constriction of current or future identified big game corridors."24 Big game migration corridors are designated by the WGFD. Currently, no WGFD-defined migration corridors exist in proximity to the Dry Creek Project; however, WGFD is currently reviewing data relative to pronghorn and mule deer movement patterns, and new migration corridors could be designated in the future. Without grandfathering protections, designation of a future migration corridor near the Dry Creek Project infrastructure after construction of the Project may limit the use or maintenance of certain Dry Creek Project infrastructure. | See Chapter 1.4 Planning Criteria for valid and existing rights. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13845-1 | Alternative B offers the strongest level of conservation for identified big game migration corridors (MA-4421 and MA-4424) though in order to better conform with current state policy and best-known science, Pew recommends a tiered management approach that applies different levels of management prescriptions to various levels of use of the corridor by animals, as defined by scientific analyses. This tiered management approach should include the following: * Bottleneck, Stopover, and High-Use habitats should prohibit surface disturbance altogether and enact seasonal closures for permitted human activities. * Medium and low-use habitats should allow development with a 3% disturbance cap for mule deer and a 1% disturbance cap for pronghorn, stemming from best available science. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13845-2 | Pew strongly recommends that the BLM apply conservation management prescriptions as outlined in MA-4421 to migration corridors identified through a rigorous scientific analysis, rather than only to those corridors identified by the Wyoming Game and Fish Department. In doing so, the BLM would recognize that scientific study and migration identification can occur through a variety of reputable sources, including the University of Wyoming and other federal agencies such as the United States Geological Survey's Corridor Mapping Team. We support the management prescriptions that MA-4421 applies to winter range and parturition areas due to their essential role in supporting healthy herds of big game species and their unique sensitivity to development impacts. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13865-20 | E. MA #4426 Alternative B of MA #4426 closes areas that are near winter ranges and parturition areas to further development considerations including coal leasing. The effects of development on big game populations can be mitigated and a balance maintained through currently employed practices. The BLM should have the flexibility to consider further development and whether impacts of future projects could be mitigated. An outright closure of the winter ranges and parturition areas without consideration of other impacts or if the impacts from development could be mitigated appears to be at odds with the BLM mission to "...sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." Coal leasing and development are significant sources of revenue to the local economy and to local and state governments and closing areas to future development and coal leasing would likely impact this revenue source. PacifiCorp recommends that the BLM adopt Alternative A or D (both are the same), as this would provide flexibility to consider each project on a case-by-case basis, rather than a blanket closure. | A range of alternatives has been analyzed for big game crucial winter range and parturition areas in management action 4426. Analysis of impacts of the actions for each alternative can be found in Chapter 4. |
| 816.02 - Big Game | #13865-45 | Similarly, much of BCC's permit area is considered antelope crucial winter range. Western portions within the permit boundary also have overlapping crucial elk winter range. Any of the big game seasonal restrictions and stipulations in Alternatives B or D that would require surface disturbing activities to stop or severely restrict surface disturbing activities in these areas could have impacts on operations including those that allow BCC to meet regulatory, permit, and lease obligations such as contemporaneous reclamation requirements and monitoring requirements. | See Chapter 1.4 Planning Criteria for valid and existing rights. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13899-25 | BLM must adopt a science-driven, tiered management approach for known and not-yet identified big game migration corridors. The science on ungulate migrations continues to evolve and has revealed how animals use different areas, or habitats, within a corridor at different intensities. For instance, mule deer have been shown to spend 95% of the migratory period foraging and resting at stopover sites. Sawyer and Kauffman (2011), identified that habitat quality is higher in stopovers than in the area between stopover sites and deer used the same stopover areas between years during all migratory periods | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13899-26 | Because of the emerging research about habitat components (stopover, bottlenecks, high-, medium-, and low-use areas) of migration corridors, we encourage the BLM to implement a tiered approach to big game migration corridors in the draft RMP. The failure to incorporate specific management guidance in the RMP will almost certainly result in projects that harm the corridor. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13899-27 | To avoid the situation we described above in the Pinedale Field Office, and to provide both clarity and durability of management through this RMP, we recommend BLM design targeted management for each component of a big game migration corridor. The tiered management approach should generally consist of: ? Bottleneck, Stopover, and High-Use habitats should prohibit surface disturbance and enact seasonal closures for permitted human activities. ? Medium and low-use habitats should limit development: we recommend a 3% density disturbance cap for mule deer medium and low use; a 3% density disturbance cap for pronghorn low-use; and a 1% density disturbance cap for pronghorn medium-use | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13899-36 | Researchers have identified several big game migration corridors in the Rock Springs Field Office, and more could be found in the future. For example, the Path of the Pronghorn (or Sublette Pronghorn migration corridor) has been recognized and mapped for years; early in 2024 the State of Wyoming will consider designating it. Yet, | A range of alternatives has been analyzed for big game migration corridors in Chapter 2 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |

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| | | the draft RMP is silent regarding this important migration corridor. We support BLM's intent, in Alternative B, to determine management in the RMP for corridors that are identified in the future. As the case study from the Pinedale Field Office, discussed above, shows, the combination of a newly identified and designated corridor and a RMP that does not acknowledge or have management guidance for it can result in projects sited within corridors, impacting the functionality and risking habitat loss and fragmentation. We recommend BLM adopt the tiered management approach described above for corridors that will be identified in the coming decades, after this RMP is finalized, and to consider incorporating the Sublette Pronghorn into the RMP before the signing of the ROD. | |
| 816.02 - Big Game | #13899-37 | MA-4424: Identify and preserve wildlife species migration and travel corridors. Prohibit surface- disturbing activities within 1/2 mile of big game migration corridors to avoid constriction of current or future identified big game corridors. Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing. ? Revise to: Identify big-game migration corridors using the best available science. Ensure continued functionality of migrations with the tiered management approach described above, including prohibiting surface disturbance in Bottleneck, Stopover, and High-Use habitats (by closing to fluid and solid mineral leasing, pursuing a locatable mineral withdrawal, and excluding rights-of-way) and enacting seasonal closures for permitted human activities. Medium and low-use habitats could allow development with a 3% disturbance cap for mule deer and pronghorn low-use, and a 1% disturbance cap for pronghorn medium-use. Evaluate and update migration habitats every three years to account for best available science. ? Justification: The BLM should manage for all corridors that are identified by peer- reviewed research (e.g. USGS Ungulate Migrations of the Western United States Volumes 1-399100101). Corridors should be modeled using the best available science for all herds and species that have sufficient data available. Identifying migratory routes and the landscape attributes associated with them are keys to protecting, enhancing, and mitigating habitat needed to sustain migrations and ungulate populations102. A buffer around corridors is not necessary. | A range of alternatives has been analyzed for big game migration corridors in Chapter 2.2.6 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13899-38 | The BLM should ensure adequate protections for Big Game Crucial Winter Range Big game crucial winter ranges are essential habitats for ungulates at a time of year when these animals are often at their most nutritionally stressed103 and disturbances on winter range can have a negative impact on herd health and population numbers. For instance, mule deer populations studied on the Pinedale Anticline natural gas field declined by 36% in response to direct habitat loss of winter range from well pads and roads covering only 3.5% of the study area104. We applaud the BLM for analyzing no-surface occupancy stipulations for oil and gas leases, closures for solid mineral leasing, and closures to wind and solar energy development for these habitats in Alternative B. Management options in Alternative C and D are far too permissive, focusing only on seasonal activity restrictions with abundant exceptions outlined. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2.2.6 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13899-39 | The impacts of development on winter range are not just from human activity itself but the loss of habitat and the long-term avoidance of infrastructure and have been reported for pronghorn105, mule deer106, and elk107 in the region. We believe big game winter ranges could be managed through low caps on disturbance densities in deference to BLM's multiple use mandate if based on disturbance thresholds reported in peer-reviewed literature. However, because this concept is not within the range of alternatives, we support Alternative B's no- surface occupancy stipulations for oil and gas, closures to renewable energy projects, and restrictions on solid mineral leasing. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2.2.6 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13899-40 | Additionally, the BLM needs to account for spatial adjustments to habitat boundaries based on updated science, including studies funded by the BLM. These include: ? Sawyer, H. 2014. Seasonal distribution patterns and migration routes of mule deer in the Red Desert and Jack Morrow Hills Planning Area. Western Ecosystems Technology, Inc., Laramie, WY. ? Sawyer, H. 2015. Seasonal distribution patterns of the Steamboat Elk Herd west of US Highway 191. Western Ecosystems Technology, Inc., Laramie, WY. ? Sawyer, H. 2015. Seasonal distribution and movement patterns of pronghorn northeast of Rock Springs. Western Ecosystems Technology, Inc., Laramie, WY. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. |
| 816.02 - Big Game | #13899-41 | The BLM should ensure adequate protections for Big Game Parturition Areas Parturition areas represent important seasonal habitat for ungulates, where forage quality108, vegetative cover109, and freedom from human disturbance110 can influence neonate survival and eventual recruitment of new animals into the population. Given this, and because young animals are especially vulnerable during their first weeks of life, we support the use of identified big game parturition areas to guide management prescriptions that maintain habitat quality and limit disturbance to parturient, newborn, and lactating ungulates in the planning area. However, we do not believe these important habitats need to have the lengthy restrictions on grazing that are proposed in Alternative B. Instead, we advocate that grazing schedules and any need for exclosures (generally and within parturition areas) are evaluated and adjusted at the time of permit renewal-in consultation with the Wyoming Game and Fish Department. | A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2.2.6 management action 4421 and 4424. A range of alternatives was analyzed for Livestock Grazing Management in actions 6400-6417. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13899-42 | These important calving and fawning grounds do require restrictions on surface disturbances from fluid and solid mineral leasing and development. We support the closures outlined in Alternative B for mule deer parturition and believe that for elk parturition, a low disturbance cap of 2% could be appropriate-unless, of course, these areas are closed for other resources (like, ACEC designations). | A range of alternatives has been analyzed for big game parturition in Chapter 2.2.6 management actions 4419-4426. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |

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| 816.02 - Big Game | #13905-5 | We support proposed prohibitions on wind development in raptor concentration areas and other sensitive habitats. These protections should be extended to solar developments, as these have been shown to block or impede antelope migrations. Wind Power in Wyoming: Doing it Smart from the Start (Attachment I) as a comprehensive blueprint for lands where wind power development should be excluded. Importantly, this report included as a Best Management Practice to keep big game seasonal habitats as "caution areas" rather than "exclusion areas" for wind development, pending scientific research to determine whether they should become exclusion areas. That scientific research has been completed, and these lands should also be treated as exclusion areas as a result of the finding that wind farm development results in large mammal avoidance. | A range of alternatives has been analyzed for protections to wildlife sensitive habitats in Chapter 2.2.6 management actions 4400-4436, and for renewable energy in management actions 6100-6108. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13908-4 | Based on the available literature, which we have provided below, we recommend integrating the following points into the Environmental Consequences assessment: * Avoidance behavior of migrating mule deer begins when development exceeds 3%. o Mule deer prefer intact habitat for stopover sites and may alter those sites to avoid disturbance while maintaining overall use of the migration path. * A disturbance threshold for migrating antelope is harder to define but varies between 1% and 9.25%. * Both mule deer and antelope avoid natural gas infrastructure during the crucial winter period, emphasizing the need to restrict development in critical areas to big game and reviewing proposed developments elsewhere on a case-by-case basis. We recommend considering the following scientific publications and adding additional supporting information into the DEIS as necessary. Aikens, E. O., Wyckoff, T. B., Sawyer, H., & Kauffman, M. J. (2022). Industrial energy development decouples ungulate migration from the green wave. Nature Ecology & Evolution, 6(11), 1733-1741. * Natural gas development within a migration corridor altered mule deer movements, reducing their ability to move with spring green-up. Sandoval Lambert, M., Sawyer, H., & Merkle, J. A. (2022). Responses to natural gas development differ by season for two migratory ungulates. Ecological Applications, 32(7), e2652. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. |
| 816.02 - Big Game | #13908-5 | Mule deer avoidance behavior began around 3% disturbance. o Antelope avoidance behavior was less consistent among spatial scales tested and varied between 1% and 9.25% disturbance during migration. * Mule deer and antelope on winter range avoided disturbance with no reliable disturbance thresholds identified. Sawyer, H., Lambert, M. S., & Merkle, J. A. (2020). Migratory disturbance thresholds with mule deer and energy development. The Journal of Wildlife Management, 84(5), 930-937. * Use by migratory mule deer decreased when disturbance percentage exceeded 3%. Seidler, R. G., Long, R. A., Berger, J., Bergen, S., & Beckmann, J. P. (2015). Identifying impediments to long-distance mammal migrations. Conservation Biology, 29(1), 99-109 | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2.2.6 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13908-6 | Migrating antelope avoided heavily developed areas of a natural gas field during migration. * Wildlife-friendly fencing is effective at increasing or maintaining big game movement on the landscape. Sawyer, H., Korfanta, N. M., Nielson, R. M., Monteith, K. L., & Strickland, D. (2017). Mule deer and energy development-Long-term trends of habituation and abundance. Global Change Biology, 23(11), 4521-4529. * Mule deer continued to avoid disturbance and development in a natural gas field in western Wyoming over a 15-year period. o Disturbance percentage was 3.5% of the study area. o Mule deer used areas approximately 0.62 miles further from well pads compared with deer prior to development. * The intensity of avoidance lessened as winter severity increased, potentially as a result of access to forage and nutritional condition of mule deer. * Mule deer abundance decreased 36% during the study period. Sawyer, H., Beckmann, J. P., Seidler, R. G., & Berger, J. (2019). Long-term effects of energy development on winter distribution and residency of pronghorn in the Greater Yellowstone Ecosystem. Conservation Science and Practice, 1(9), e83. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2.2.6 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13908-7 | Antelope avoidance of natural gas well pads increased by approximately 1,350 feet over the 13-year development period. * Antelope spent 22% less time (approximately 1 month) in the natural gas field after development. * The number of antelope that left the study area during the winter increased by 57% during the study period, suggesting loss of functional winter range. Wyckoff, T. B., Sawyer, H., Albeke, S. E., Garman, S. L., & Kauffman, M. J. (2018). Evaluating the influence of energy and residential development on the migratory behavior of mule deer. Ecosphere, 9(2), e02113. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2.2.6 management action 4421 and 4424. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13908-8 | The science evaluating impacts of wind and solar energy to big game are lacking, which should be reflected in the decision-making process. * Impacts of wind energy to antelope are variable although most studies have identified some level of avoidance behavior near turbines. * Poorly sited solar facilities can have significant negative impacts on antelope movement. We recommend considering the following scientific publications and adding additional supporting information to the EIS as necessary. Wind Energy Development Milligan, M. C., Johnston, A. N., Beck, J. L., Smith, K. T., Taylor, K. L., Hall, E., ... & Kauffman, M. J. (2021). Variable effects of wind-energy development on seasonal habitat selection of pronghorn. Ecosphere, 12(12), e03850. | A range of alternatives has been analyzed for protections to wildlife sensitive habitats in Chapter 2.2.6 management actions 4400-4436, and for renewable energy in management actions 6100-6108. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13908-11 | Winter survival was not significantly influenced by exposure to wind energy development during their study period (3 winters). o Survival increased as distance from major roads increased and time spent in sagebrush. Solar Energy Development Sawyer, H., Korfanta, N. M., Kauffman, M. J., Robb, B. S., Telander, A. C., & Mattson, T. (2022). Trade-offs between utility-scale solar development and ungulates on western rangelands. Frontiers in Ecology and the Environment, 20(6), 345-351. * Research was focused on antelope movement at the Sweetwater Solar facility, which is located on BLM-lands within the RSFO. * Sweetwater Solar facility is located within Antelope Crucial Winter-Yearlong Range. * Solar facility is a barrier to antelope, blocking access and reducing connectivity | A range of alternatives has been analyzed for protections to wildlife sensitive habitats in Chapter 2.2.6 management actions 4400-4436, and for renewable energy in management actions 6100-6108. Analysis of impacts for the actions in each alternative is found in Chapter 4. |

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| | | to formerly available habitats. o The single ~570-acre facility impacted 69% of resident antelope, 86% of local migrants, and 57% of Opal herd migrants. | |
| 816.02 - Big Game | #13912-16 | Big Game Crucial Habitats. BLM proposes to close all "big game crucial winter ranges, parturition areas, migration corridors, and transitional habitats" to surface disturbance or disruptive activities (MA# 4421). As shown in Map 3-3, these important big game ranges encompass vast areas throughout the RMP, including much of the checkerboard lands north of Interstate 80 and along the western edge of the RMP area, which also happens to overlap with the Known Sodium Leasing Area ("KSLA"). If implemented, these severe restrictions would hamstring project development throughout the checkerboard, in violation of BLM's obligation to allow for multiple uses. | See Section 1.4 for the Planning Criteria, including references to all alternatives compliance with FLPMA. A range of alternatives has been analyzed for surface disturbing and disruptive activities in big game crucial winter ranges, migration corridors and transitional habitats in chapter 2 management action 4421. Analysis of impacts of the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13912-17 | Importantly, BLM fails to explain why blanket, year-round restrictions are necessary throughout these massive habitats. BLM does not explain whether population trends under current management warrant such restrictions, or why less drastic measures would not be sufficient to address big game concerns. Moreover, blanket prohibitions that make no exception for seasonal use are inconsistent with Wyoming Game and Fish Department recommendations, which takes primacy in matters of wildlife management.3 Here, Wyoming has applied conservative approaches to managing big game throughout the State and within the Rock Springs planning area, including seasonal restrictions. BLM's proposal to override the State's balanced wildlife management approach is contrary to multiple use management and the federal government's FLPMA obligation to follow the State's lead on wildlife protection. | A range of alternatives has been analyzed for protections to wildlife sensitive habitats in Chapter 2.2.6 management actions 4400-4436. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13923-11 | The Sublette Mule Deer Migration Corridor should be recognized as a migration corridor Maintaining the functionality and permeability of this corridor is paramount for the health and longevity of the Sublette mule deer herd. Migration corridor functionality as defined in Executive Order 2020-1, Wyoming Mule Deer and Antelope Migration Corridor Protection (EO 2020-1) states, "Maintaining connectivity between summer and winter ranges to allow mule deer and antelope movements conducive to necessary foraging and rest during migration, based on best-available scientific data." Sportsmen support the management prescriptions outlined in EO 2020-1 and realize that this is meant to be an adaptive document. The Rock Springs Final RMP should include management prescriptions outlined in EO 2020-1 and be adaptive to accommodate any changes reflected in EO 2020-1 and/or any changes in the best available science. For example, if any new science dictates no surface occupancy (NSO) in high use or stopover habitat, then the sportsmen would support amending the management to reflect the contemporary science. | See updated text in Chapter 3 regarding existing big game corridors. A range of alternatives has been analyzed for big game migration corridors in Chapter 2.2.6 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13923-12 | In a study conducted just north of the RSFO, in the Pinedale Anticline, Sawyer et. al (2020) found that mule deer migration is disrupted when surface disturbance within a migration corridor, in sagebrush dominant landscapes, exceeds three percent. While this is a relatively low threshold, it does allow for some development within a corridor. The BLM NEPA Handbook directs the BLM to, "...use the best available science to support NEPA analyses…(BLM Handbook H-1790-1, p.55)" Similarly, a study conducted by Lambert et. al. (2022) conducted in the Green River Basin also found that mule deer begin avoiding areas during migration once a surface disturbance threshold of three percent is reached. The BLM should consider all relevant and contemporary science, including the studies described above and use their findings to inform management decisions in the final RMP and ROD. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for big game migration corridors in Chapter 2.2.6 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13923-20 | Pursuant to NEPA, there is no requirement for federal agencies to adhere to Instruction Memoranda or Secretarial Orders when revising Resource Management Plans. These specific directives, SO 3362 and IM 2023-005, are extremely important, however, when contemplating management actions within the RSFO, which hosts a myriad of connected habitats that need to remain intact to ensure long term viability of big game species. Sportsmen request that the BLM follow the instructions outlined in IM 2023-005 and SO 3362 and work closely with the state of Wyoming, specifically the WGFD, to assess and prioritize the management of these important habitats. | See Chapter 1.4 Planning Criteria for compliance with applicable laws and policy, as well as coordination with the State of Wyoming and WGFD. |
| 816.02 - Big Game | #13943-2 | We request that BLM include language in the final RMP that is responsive to the most recent science through updated allocations and management actions, especially regarding the need for permeability within big game migration corridors and important seasonal habitats. o In a study conducted just north of the RSFO, in the Pinedale Anticline, Sawyer et. al (2020) found that mule deer migration is disrupted when surface disturbance within a migration corridor, in sagebrush dominant landscapes, exceeds three percent. While this is a relatively low threshold, it does allow for some development within a corridor. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for big game migration corridors in Chapter 2.2.6 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13943-3 | * Recognize Secretarial Order 3362 and Instructional Memorandum 2023-005 in the final RMP: o Secretarial Order 3362 (SO 3362), Improving Habitat Quality in Western Big Game Winter Range and Migration Corridors, directs the appropriate bureaus within Department of the Interior to, "...work in close partnership with…Wyoming to enhance and improve the quality of big-game winter range and migration corridor habitat on Federal lands under the management jurisdiction of this Department in a way that recognizes state authority to conserve and manage big-game species…" | See Chapter 1.4 Planning Criteria for compliance with applicable laws and policy, as well as coordination with the State of Wyoming and WGFD. |
| 816.02 - Big Game | #13943-4 | studies suggest that current EO 2020-1 guidance for controlled surface use along with timing limitation stipulations in high use stopovers, and high, medium, and low use areas may need to be updated in the final plan to adequately ensure corridor connectivity. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for big game migration corridors in Chapter 2.2.6 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |

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| 816.02 - Big Game | #13943-6 | At a minimum, we ask the BLM to work with the WGFD and the state of Wyoming to apply management prescriptions as identified in EO-2021 for the corridor as the state moves forward with a state designation process. We request that BLM also include in its analysis the expectation/potential that the Sublette Antelope Herd will be designated by the state, and create additional standards, guidelines, and management actions that would apply once designation is complete. | See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. A range of alternatives has been analyzed for big game migration corridors in Chapter 2.2.6 management actions 4424 and 7555 - 7562. Analysis of impact for actions in each of the alternatives is found in Chapter 4. |
| 816.02 - Big Game | #13943-10 | All mapped big game crucial winter areas, parturition areas, stopover areas, and migration corridors should be fully considered in the RMP, and BLM should include management actions that avoid or significantly limit surface disturbing activities in those areas. * At a minimum, all formally designated migration corridors and non-designated corridors that have been recognized through a scientific, peer reviewed process should be managed in a manner that is consistent with the Wyoming Executive order 2020-1 and include the following oil and gas stipulations: no surface disturbance in bottlenecks, controlled surface use along with timing limitation stipulations in high use stopovers, and high, medium, and low use areas. | A range of alternatives has been analyzed for big game in Chapter 2.2.6 management actions 4419-4426. Analysis of impact for actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and policy, as well as coordination with the State of Wyoming and WGFD. |
| 816.02 - Big Game | #13945-2 | 2. MA #4420 requiring no livestock grazing in big game parturition areas, which is most of the allotment used by this commentor, from May 1 to June 30. This would cause a one month reduction in the season of use, which is a crucial time period to have livestock on the allotment and off private land in order to grow winter feed. This MA would further interrupt pasture rotations on the allotment that have been carefully developed between the permittee and BLM staff. Again, the Draft EIS does not fully account for the social and economic impacts of delaying turnout for one month nor does it account for the environmental impacts caused by the disruption of established rotational grazing schemes. This MA also applies a sledge hammer approach to areas in which there is no documented conflict between big game parturition and livestock grazing. | A range of alternatives has been analyzed for livestock grazing and big game parturition in Chapter 2.2.6 management action 4420. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 816.02 - Big Game | #13951-4 | Page 2-68; Biological Resources #4420 "Prohibit livestock grazing in big game parturition habitat during the birthing season (usually from May 1 through June 30)." -The governor already has a task force to address wildlife corridors. The only reason to involve parturition is brucellosis. Alterative D is preferred because it appropriately defers consideration of potential grazing adjustments to meet conflicts, if any, with big game parturition, to the permit renewal process. Alternative D allows for site-specific management with a flexible timeframe, while other alternatives require a specific timeframe. | A range of alternatives has been analyzed for livestock grazing and big game parturition in Chapter 2.2.6 management action 4420. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #9793-4 | Currently, BLM restricts both "surface disturbing" and "disruptive activities" seasonally within 1/2- to 1-mile radius of occupied raptor nesting sites. Under the BLM's preferred alternative, these activities would be restricted "within a two-mile radius of occupied nests" as well as "historic raptor nesting sites" and "associated feeding grounds." The DEIS fails to provide a scientific reason for such expansion, and it is far beyond the recommendations set forth by the U.S. Fish & Wildlife Service (the agency with responsibility for these species) or in scientific literature on the subject. | A range of alternatives has been analyzed for raptors in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for the actions in each alternatives is found in Chapter 4. See Appendix J for summary of seasonal restrictions. |
| 816.03 - Raptors | #9794-1 | Map 3-4, is a map of raptor nests but includes nesting locations for ravens and Canada goose. Neither of these species are raptors and should not be included. | Changes have been incorporated to remove non-raptor species. |
| 816.03 - Raptors | #9846-3 | TP proposes to increase restrictions to protect raptors on public lands….with TP defining “raptor” to include “hawks, owls, vultures, ravens, and eagles.” Ravens aren’t raptors; raven nests on industrial equipment causes and creates health hazards for works. Suggesting that these nests should be protected is irresponsible and ignorant | See Chapter 1.4 Planning Criteria for compliance with applicable laws. Ravens are protected under the Migratory Bird Treaty Act. |
| 816.03 - Raptors | #10324-3 | 2.) Power lines and Raptors While power lines were mentioned in the EIS concerning preventing perches being developed on power lines to protect raptor prey species, however, I think it is important to consider how power lines impact raptors via electrocution. Within the RMP, there are six raptors that the BLM listed as a high priority for conservation, and there is a lot of content in the RMP about raptor habitat and nesting sites, however, there is very minimal consideration besides a small section in Alternative A about power lines near nesting sites. While this is very important, birds can fly, so only looking at the effect of power lines in nesting ranges is turning a blind eye to the problem. In 2021, the National Wildlife Federation published an article on this topic and shared the staggering data that as many as 11.6 million birds may be killed each year by electrocution via power lines, and due to the generally large size of raptors, like the charismatic bald and golden eagles, this puts species like this at severe risk.8 Throughout a 15 year study by the US Fish and Wildlife Service's National Forensics Laboratory examined over 400 birds within 13 species of raptors and concluded that almost 80% of the birds electrocuted were bald or golden eagles, which are two of the species mentioned on the RMP as species of conservation concern.8 Raptors, specifically eagles, are an iconic species not only in the US, but also in Wyoming, which draws people interested in bird and wildlife watching to the area, so it is important for the community to be interested and involved in raptor conservation. In the RMP, the 2016 Consumer Surplus Value for wildlife viewing was high valued at $1,722,409, which is not a number to push aside.5 In addition to wildlife viewing bringing money to the area, raptor and power line conclusions can become costly for utility companies, through events like power outages.9 There are relatively cheap solutions out there, to prevent these instances, so it is irresponsible for the RMP to not address this. This cost to the power company likely will trickle down to customers and can impact individuals in the surrounding area with power outages. Some of the ideas mentioned in the RMP including minimizing perches, like power lines, | See Chapter 1.4 Planning Criteria for compliance with applicable laws and policy. See the Executive Summary, Section 4.2.2 for Availability of Data and Incomplete information, and 4.2.3 for Analysis Assumptions for Adequacy of Data and Analysis. See Also Appendix A for Best Management Practices. |

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| | | where there is good habitat for hunting or nesting, are a great start. But it should be considered to look at power line development in areas of raptor migration and other protective technologies on the power lines itself. | |
| 816.03 - Raptors | #13210-118 | 4431 Alternative D Avoid surface disturbing and disruptive activities seasonally within the identified buffer of occupied nests and historic raptor nest sites (see Appendix J). Appendix J (Seasonal Wildlife Restrictions), referenced in Alternative D, includes the current USFWS guidance for appropriate buffer distances around raptor nest sites. One group expressed concern that there is discrepancy between Appendix J and current USFWS guidance and therefore desired to alter the management action language to direct the BLM to match this guidance rather than specific buffers outlined in Appendix J. | Appendix J is consistent with USFWS Wyoming Guidelines |
| 816.03 - Raptors | #13287-11 | We support the employment of raptor perch deterrents (DEIS at 2-82), but it is important to recognize that these are only partially effective. Such perch deterrents reduce, but do not eliminate, raptor perching (Slater and Smith 2010). Notably, it was golden eagles and ravens, two of the most important sage grouse predators and nest predators, respectively, that most effectively circumvented powerline perch inhibitors in this study. Within the range of the Gunnison sage grouse, Prather (2010) empirically found perch inhibitors to be ineffective at preventing raptor perching on smaller powerlines. The RMP amendment must include sufficient protections to keep such transmission lines at least 0.25 miles away from all Occupied and Unoccupied Habitats. | A range of alternatives for raptor perches is analyzed in Chapter 2.2.6 management action 4620. A range of alternatives for raptor nesting protections is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13353-11 | The 2023 Draft RMP/DEIS Glossary of Terms (page GL-24) has de?ned Raptors as: "Bird of prey with sharp talons and strongly curved beaks such as hawks, owls, vultures, ravens, and eagles." Map 3-4: Raptor Nest Sites, further expands this de?nition to include the following species: Northern Harrier, American Kestrel, Osprey, Bald Eagle, Prairie Falcon, Burrowing Owl, Red-Tailed Hawk, Canada Goose, Sharp-Shinned Hawk, Common Raven, Short-Eared Owl, Cooper's Hawk, Swainson's Hawk, Ferruginous Hawk, Turkey Vulture, Golden Eagle, Great Horned Owl, Merlin, and Unidenti?ed Raptors. However, Map 3-4 Raptor Nest Sites, does not include the required two-mile exclusion zone around each of these identi?ed raptor nests and associated feed grounds for the listed species. It appears the seasonal closures would impact the vast majority of the planning area. Please provide an accurate map indicating total areas that will be seasonally closed for wildlife habitat. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Maps of seasonal restrictions and closures can be found by alternative in maps 2.5 through 2-8. |
| 816.03 - Raptors | #13353-12 | The 2023 Draft RMP/DEIS seems to erroneously include several species as raptors in the glossary of terms and associated map, e.g., Canada Goose and Common Raven. These species are clearly not threatened or endangered species requiring special management action as de?ned in the Endangered Species Act (1973), nor are these species considered raptors. | Ravens and Canada geese are both protected by the Migratory Bird Treaty Act. |
| 816.03 - Raptors | #13542-3 | Historic Raptor Nests--Alternative B proposes to prohibit surface occupancy within one mile of historic raptor nest locations, not just active raptor nest locations; this has the potential to suddenly close many current operations that have valid existing rights to operate where a historic nest may have existed and will certainly limit the ability to continue with development of the trona resource to supply those existing soda ash production operations as the current active mining areas are depleted and we need to pursue mining in planned areas The term "Historic" raptor nest has been taken out of context of the original Green River RMP which was intended to reference historic raptor areas like Kinney Rim. Applying historic raptor nests to the entire RMP is unprecedented and not based on sound science. The timeline of Historic raptor nests is not defined. | See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. |
| 816.03 - Raptors | #13542-39 | MA#4430. Alternative B. 2-73 By closing sodium prospecting in the MMTA within 1 mile of occupied and historic raptor nests and associated feeding grounds, the BLM would be limiting future extraction of naturally occurring trona and undermining the BLM's directive of multiple use of the managed lands in large areas. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | A range of alternatives is analyzed for raptor nest protections and buffers in Chapter 2.2.6 management action 4430. Assumptions for analysis can be found in 4.7.1. |
| 816.03 - Raptors | #13542-41 | MA#4430. Alternatives B and D. 2-73 How did the BLM define buffer distances for each species? BLM should consider allowing the term "appropriate distance" and "determined on a case-by-case basis" into each of the alternatives to allow for flexibility and real-world conditions. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | A range of alternatives is analyzed for raptor nest protections and buffers in Chapter 2.2.6 management action 4430. Assumptions for analysis can be found in 4.7.1. |
| 816.03 - Raptors | #13542-42 | MA#4431. Alternatives B, C, and D. 2-74 How did the BLM define buffer distances for each species? BLM should consider allowing the term "appropriate distance" and "determined on a case-by-case basis" into each of the alternatives to allow for flexibility and real-world conditions. Many existing industrial facilities are closer to occupied and historic raptor nesting sites than these alternatives allow. Please define raptor "associated feeding grounds" within the RMP, as this could apply to broad swaths of land depending on the definition used by BLM. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. A range of alternatives is analyzed for raptor nest protections and buffers in Chapter 2.2.6 management action 4430. Assumptions for analysis can be found in 4.7.1. |
| 816.03 - Raptors | #13542-43 | MA#4434. Alternatives B and D. 2-74 There is little value and high costs in time and personnel to conduct raptor surveys for all projects within a four-mile (or one mile for Alternative D) radius of surface disturbing or disruptive activities if the proposed activities are not scheduled to occur during raptor nesting seasons or are small projects | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4434. |

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| | | with little potential impact on raptors. An exception should be allowed for these required surveys and the distances should be reduced for these surveys | |
| 816.03 - Raptors | #13542-46 | MA#4620. Alternative B. 2-82 How will the BLM determine what new permitted vertical structures are suitable for raptor perching? Please analyze in detail and disclose to the public the scientific sources used to develop potential criteria to determine suitability, and potential mitigation measures that could be used to avoid impacts. | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. |
| 816.03 - Raptors | #13556-2 | MA#4428 Alternatives B, C, and D contain references to Appendix J which prescribes distances. These alternatives contain acceptable language but the references to Appendix J makes them unacceptable. In some cases, the distances listed in the alternative exceeds US Fish & Wildlife recommended distances. Since USFW has primary jurisdiction over raptor nests, eggs, and young, USFW recommended distances should be used. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13585-61 | Management Actions #4428 and #4430 under Preferred Alternative B, and other alternatives, could close areas where historic raptor nests are located instead of limiting it to only occupied nests. DEIS at 2-72 - 27-3. The County questions the protection of historic nests when the DEIS provides no explanation or scientific evidence establishing the need to protect historic nests. See BLM Handbook, Section 6.8.1.1 (requiring the identification of known and predicted effects that are related to the issues within an EIS). | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13585-62 | In addition to the issue of historic raptor nests, MA#4431places a buffer requirement of 2-miles from surface disturbing facilities which is more restrictive than United States Fish and Wildlife standards. The BLM has not provided information to support a 2-mile buffer zone. The BLM arbitrarily applied a 2-mile buffer zone. (See Attach. 13, Wyoming Ecological Field Office Protections for Raptors) | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13672-8 | The need to protect nesting raptors and species-specific requirements is understood and accepted. MA #4428 Alternatives B, C, and D contain references to Appendix J which prescribe distances. These alternatives contain acceptable language but the references to Appendix J makes them unacceptable. In some cases, the distances listed in the alternative exceed US Fish & Wildlife Service (USFWS) recommended distances. Since USFWS has primary jurisdiction over raptor nests, eggs, and young, USFWS recommended distances should be used. An acceptable alternative should reference USFWS recommended distances and allow case-by-case determination of distances based on species, topography, line of sight distances and additional protective measures to be worked out in consultation with USFWS, WGFD, and BLM. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13702-8 | MA 4428 Alternatives B, C, and D contain references to Appendix J which prescribes distances. These alternatives contain acceptable language but the references to Appendix J makes them unacceptable. In some cases, the distances listed in the alternative exceeds US Fish & Wildlife Service (USFWS) recommended distances. Since USFWS has primary jurisdiction over raptor nests, eggs, and young, USFWS recommended distances should be used. An acceptable alternative should reference USFWS recommended distances and allow case-by-case determination of distances based on species, topography, line of sight distances and additional protective measures to be worked out in consultation with USFWS, WGFD, and BLM. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13730-2 | On page 2-71 it states that a seasonal closure in raptor nesting areas and in Appendix J-2 the restrictions will be from feb 1-july 31 within two miles. There are no definitions for "active" or "historic" or "associated feeding areas" where are they? | See Map 3-4. |
| 816.03 - Raptors | #13730-3 | The plan lists raptors as hawks owls vultures ravens and eagles. RAVENS? they are not raptors! | Ravens are protected by the Migratory Bird Treaty Act |
| 816.03 - Raptors | #13751-46 | Per the current Green River RMP and Page 2-72 [Alternative A] of the Draft RMP/DEIS, a historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim." The term Historic Raptor Nests has been taken out of context in Alternative B. Although the glossary properly indicates temporal and spatial restrictions will not apply, Appendix J includes spatial and temporal restriction for historic raptor nests. In conformance with current science, 'historic' raptor nesting areas may be worthy of reference, but any seasonal buffers and no-surface-occupancy limitations must be based on sound science.[...]The Rock Springs Draft RMP/DEIS does not provide any scientific basis for raptor nest closures, rather the brief discussion on Page 4-56 is speculative and not based on specific biological statistics. Raptors are not on the Draft RMP/DEIS list of special status species.[...]The Rock Springs RMP must not just declare Historic Raptor Nest buffer areas as no-surface-occupancy because it has no basis on science. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13751-53 | Alternative B proposes to prohibit surface occupancy within one mile of historic raptor nest locations, not just active raptor nest locations; this has the potential to suddenly close many current operations that have valid existing rights to operate where a historic nest may have existed. The term "Historic" raptor nest has been taken out of context of the original Green River RMP which was intended to reference historic raptor areas like Kinney Rim. Applying historic raptor nests to the entire RMP is unprecedented and not based on sound science. The timeline of a Historic raptor nests is not being defined. Occupied includes the last 3 years, which is more appropriate and based on current information. The approved Kemmerer RMP does not use the same definition for "historic" raptor nests and is a better model to follow (see Kemmerer RMP Decision or management action #4044). | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 816.03 - Raptors | #13751-84 | The need to protect nesting raptors and species-specific requirements are accepted. MA #4428 Alternatives B, C, and D contain references to Appendix J which prescribes distances. These alternatives contain acceptable language but the references to Appendix J makes them unacceptable. In some cases, the distances listed in the alternative exceeds US Fish & Wildlife Service (USFWS) recommended distances. Since USFWS has primary jurisdiction over raptor nests, eggs, and young, USFWS recommended distances should be used. An acceptable alternative should reference USFWS recommended distances and allow case-by-case determination of distances based on species, topography, line of sight distances and additional protective measures to be worked out in consultation with USFWS, WGFD, and BLM. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13751-134 | MA #4428Alternative A Active and historic raptor nesting sites would be protected and managed for continued nesting activities. An active raptor nest is one that has been occupied within the past three years; a historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The appropriate level of protection would be determined on a case-by- case basis depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. Different species of raptors may require different types of protective measures (Appendix J). Industry position: not acceptable Reason: Industry supports distance restrictions in Appendix J for Alternative A and the importance of protecting occupied nests and future nesting opportunities. Industry favors distance restrictions for "occupied nests" as opposed to "active" nests that are not occupied. Industry disagrees with the definition BLM assigns to "active nest" as one that has been occupied within the past three years. This definition contradicts the memorandum dated June 14, 2018, issued by the USFWS Assistant Director, Migratory Birds to Regional Directors on the Subject "Destruction and Relocation of Migratory Bird Nest Contents. Footnote 2 on page 1 of that memorandum states "An active nest is one that contains viable eggs and/or chicks. A nest becomes active when the first egg is laid and remains active until fledged young are no longer dependent on the nest. Nests that are empty, contain non-viable eggs, are being built but do not have an egg in them are considered inactive." USFWS guidance should be followed since that agency has the primary jurisdiction over raptors, their nests, eggs, and young. The term historic raptor nest is properly defined here per the current RMP as follows: historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The term "etc." must be removed here because it is too open ended and specific historic raptor nesting areas as presented in the current RMP must be defined. Alternative B Protect occupied nests and historic raptor nesting sites and associated feeding areas and manage for continued nesting activities. Determine, on a case-by-case basis, the appropriate level of protection depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. Different species of raptors could require different types of protective measures (Appendix J). Industry position: not acceptable Reason: Appendix J for Alternative B sets a restricted area of two miles from active and historic nests for all raptor species. This distance exceeds the guidance for all raptor species in USFWS Wyoming Ecological Services Field Office March 9, 2022, guidance document Table 1 which sets distances for each applicable raptor species except bald eagles. Distances in that guidance range from 0.25 miles to 1.00 mile depending on species. Specific buffer distance recommendations for bald eagles in the USFWS California and Nevada dated May 2021 is 1 mile except for all activities except for blasting and other loud non-regular noises which is 2 miles. USFWS guidance should be followed since that agency has primary jurisdiction over raptors, nests, eggs, and young. Industry also notes a disagreement between the definition of Historic Raptor Nest on Glossary page GL-14 and Appendix J seasonal closure restrictions and restricted areas. The definition of Historic Raptor Nests in the Glossary states that "Temporal and special stipulations will not apply." Appendix J applies seasonal restrictions and restricted areas to historic nests in Alternatives B and D. Alternative C Protect occupied raptor nesting sites and managed for continued nesting activities. Determine, on a case-by-case basis, the appropriate level of protection depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. Different species of raptors could require different types of protective measures (Appendix J). Industry position: not acceptable Reason: Industry supports the language in Alternative C but notes a contradiction between Alternative C language which uses "occupied nests" and Appendix J (J.3) Alternative C which uses "active nests." Alternative D No similar action (see other actions in this section) Industry position: Not acceptable. Reason: Industry notes that Appendix J (J.4) Alternative D contains a 2-1/2 mile restricted area distance from occupied and historic bald eagle nests. This distance exceeds USFWS recommendations referenced under Alternative A. Industry also notes a disagreement between the definition of Historic Raptor Nest on Glossary page GL-14 and Appendix J seasonal closure restrictions and restricted areas. The definition of Historic Raptor Nests in the Glossary states that "Temporal and special stipulations will not apply." Appendix J applies seasonal restrictions and restricted areas to historic nests in Alternatives B and D. MA #4429 SAME AS MA 4428 | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13751-135 | MA #4430 ALT A Project components, such as permanent and high-profile structures, e.g., buildings, storage tanks, power lines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than ½ mile) would be determined on a case-by- case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within ½ mile of active raptor nests, in certain | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | circumstances (Appendix J). Industry position: Not acceptable Reason: Alternative A is working as can be demonstrated by good raptor numbers in the area. However, surface facilities can often be located outside of an appropriate distance of ½ mile. In instances where ½ mile is not feasible in the KSLA allowance should be made for mitigation that does not disrupt the future nesting success of the raptor pair. Industry also notes that this MA and Appendix J (J.1) Alternative A applies to "active nests" presumably the BLM definition of active nest. USFWS definition of active nest should be used. ALT B Prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds. This includes project components such as permanent and/or high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.). Manage as: 1) NSO for fluid minerals; 2) closed for coal and sodium prospecting; 3) closed to material sales; 4) avoidance area for new rights-of-way. Buffer recommendations could be modified on a site-specific or project-specific basis based on field observations and local conditions. Infrastructure (or facilities) that have potential to cause direct avian mortality (e.g., wind turbines, guyed towers, airports, wastewater disposal facilities, transmission lines), would follow USFWS recommendations to locate structures away from high avian- use areas such as those used for nesting, foraging, roosting or migrating, and the travel between high-use areas. Industry position: not acceptable Reason: Industry supports locating surface facilities so that impacts to raptors are prevented whenever feasible. A 1-mile prohibition is excessive. When surface facilities must be located to support leasable mineral extraction in the KSLA effective mitigation measures should be employed with the cooperation with the cooperation of BLM and USFWS and WGFD as necessary. The concept of historic raptor nests is being taken out of context under Alternative B. The current RMP uses the concept of historic raptor nest only for very specific locations. ALT CProject components, such as permanent and high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.) are restricted within an appropriate distance of occupied raptor nests. The appropriate distance (usually less than ½ mile) would be determined on a case-by- case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. * CSU for fluid minerals. Industry position: not acceptable Reason: Industry largely agrees with this language except that language should be added that exceptions to the restriction are considered with implementation of effective mitigations within the KSLA. Mitigation measures will protect future nesting. ALT D Industry position: not acceptable Reason: The language of this MA is largely acceptable. Industry recognizes the need to protect raptor nesting success in areas of needed surface facilities. However, this MA should clearly state that buffer distances can be modified on a site-specific basis in the KSLA with the development of an appropriate mitigation and monitoring plan to protect nesting success and future nesting success in the nesting territory. The concept of historic raptor nests is being taken out of context under Alternative B. The current RMP uses the concept of historic raptor nest only for very specific locations. | |
| 816.03 - Raptors | #13751-136 | MA #4431 ALT A Industry position: Not acceptable: Reason: Industry respects the need to protect occupied raptor nests with appropriate distances. Distance determinations should be made case by case and be project specific with appropriate specific mitigation and monitoring plans. ALT B Industry position: Not acceptable Reason: A two-mile protective radius is excessive for occupied nests and not necessary for historic nests. Site-specific and project-specific mitigations can be applied to reduce the protective radius. ALT C Industry position: Not acceptable Reason: Industry supports a 1/2-mile buffer around occupied raptor nests, but allowance should be made for site-specific and project-specific mitigation and protective measures. ALT D Industry position: Not acceptable Reason: Appendix J sets a protective distance of 2-1/2 miles for occupied and historic bald eagle nests and 1 mile for occupied and historic ferruginous hawk nests. Industry recognizes the need for a larger protective distance for these two species relative to other raptor species and for the need to protect nesting success of occupied nests and future nesting. However, in the KSLA allowance should be made appropriate site- specific and project-specific mitigation and monitoring where surface facilities are needed to support leasable trona. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management action 4431. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13751-137 | MA #4434 ALT A Industry position: Not acceptable Reason: Raptor nest surveys should not be required if the surface disturbing activity is not in an area of raptor nesting habitat. A requirement for raptor nest surveys should be case by case. ALT B Industry position: Not acceptable Reason: Industry agrees with raptor survey in the area around proposed surface disturbance that is proposed to occur during the nesting season in areas of raptor nesting or in the area of permanent or long duration surface facilities. The requirement should be case by case. A four-mile radius is excessive; ½ to 1 mile is acceptable based on species expected to occur in the area. Once occupied nest(s) are located raptors can be expected to forage within 4 miles of the nest because most of their hunting will be within their nesting territory. ALT C Industry position: Not acceptable Reason: Industry agrees in large part with this MA in order to protect active raptor nests and future nesting when and where surface facilities are needed. Industry desires to add that nest surveys should be done case by case where suitable raptor nesting is identified. ALT D Industry position: Not acceptable Reason: Industry agrees with this language but would add if surface disturbing activities are proposed to occur during raptor nesting season. | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4434. |
| 816.03 - Raptors | #13751-138 | MA #4435 ALT A Industry position: Not acceptable Reason: Industry agrees with protective measures for fish spawning areas and application as necessary. Industry recommends allowance for mitigation and monitoring that will protect water quality and prevent erosion and sedimentation and disruption of spawning activity. ALT B Industry position: Not acceptable Reason: Area should not be closed to trona leasing within the KSLA. The TLS opens only 6 weeks during the late summer for construction of surface facilities. Allowance should be made case | A range of alternatives has been analyzed for fish bearing streams in Chapter 2.2.6 management action 4435. |

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| | | by case for construction of surface facilities in support of leasable trona where adequate mitigation can be applied. ALT D Industry position: Not acceptable Reason: Industry agrees that fish reproduction habitat should be protected. TLS stipulation leaves only 6 weeks open for construction of surface facilities. Allowance should be made for case-by-case review of surface facilities with adequate mitigation | |
| 816.03 - Raptors | #13752-8 | changing from species-specific buffer distances to a blanket one-mile buffer does not account for the unique biology of each species. EWAC encourages the BLM to be consistent with the USFWS and reference the Service's published raptor nest buffer distances rather than create arbitrary buffers for this Field Office (USFWS 2002, 2020). Raptor species vary in their sensitivity to human activity while nesting. Raptor protections should include allowing a biologist to monitor an occupied raptor nest while work is being done inside raptor nest buffers if it is appropriate for the species and type of work. Restrictions should not apply to raptor feeding areas, as this term is far too expansive. Raptors forage over large to very large areas, depending on the species. Indeed, nearly all of the Rock Springs Field Office could potentially fall under the category of a "raptor feeding area." | See Appendix J. A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13754-18 | Appendix J Table J.2 Seasonal Wildlife Restrictions applies a 2-mile restricted area around active and historic raptor nests from February 1 through July 31. These blanket restrictions are not supported by scientific studies and do not consider variable conditions such as nest condition, recent nest use/dis-use, topographic sight-line and sound barriers, or species- specific tolerance to human activity. With regard to buffers surrounding raptors nests, it has long been the practice of the BLM to defer to the U.S. Fish & Wildlife Service for those determinations. This coordination should continue allowing BLM biologists and USFWS to use their scientific and regional knowledge to analyze disturbance thresholds, topography and other sight-line and sound barriers around active raptor nests on a case-by-case basis | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13775-4 | The Preferred Alternative contains several provisions relating to surface occupancy and disturbance restrictions near raptor nests. Specifically, under MA#4428, BLM-WY would "Protect occupied nests and historic raptor nesting sites and associated feeding areas for continued nesting activities." The Preferred Alternative would also "Determine case by case the appropriate level of protection depending on species, topography, line of sight distances (Appendix J).19" This is problematic because, as previously mentioned, the distances described in Appendix J include a two-mile buffer from historic and active nests for all raptors. This exceeds USFWS' science-based guidance of 0.25 to one-mile buffers - which are meant to vary by species as opposed to Alternative B's categorical two-mile buffer for all raptor species - and is therefore arbitrary and unsupported. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13775-5 | the ubiquitous two-mile buffer does not give any consideration to specific locations, geography/topography, line of sight distances to nests from human activities, specific human activities in question, and individual raptor species' toleration of those activities. BLM-WY should provide itself with the ability to tailor protection measures based on circumstances such as - but not limited to - those described above. This can enable raptors to receive necessary protections at the proper time and in the proper manner while still allowing activities that do not actually harm or deter raptors from using nests to continue. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13779-7 | Management Action 4430 in the proposed alternative would prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds. Under current management practice, the distance between the nest and allowed surface occupancy is determined on a case-by-case basis (but is usually less than ½ mile). BLM does not explain why an increase from ½ to 1 mile is necessary. Nor does BLM explain how associated feeding grounds would be identified. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13787-47 | MA #2401 MR-02, MR-04 With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM- administered public lands and federal coal lands in the Green River planning area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential Table 2-7 in Appendix V, Map 2- 9). Industry position: Not acceptable Reason: Industry agrees with most of the language in this management action but disagrees with the closure to coal leasing and development within ¼ mile of raptor nest sites under Alternative A in Appendix V Table 2-7 (page V-14). Exceptions should be made where the leasing proponent or coal mine operator has a raptor mitigation plan that has been reviewed and approved by the USFWS that protects raptor nesting success. Appropriate nest protections or mitigation measures will be applied. With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM-administered public lands and federal coal lands in the Rock Springs planning area, except for those lands identified as closed, would be open to coal resource inventory and exploration to help identify coal resources and their development potential (Table 2-7 in Appendix V, Map 2-10). Industry position: Not acceptable Reason: Appendix V Table 2-7 pages V-14 - V-15 closes coal leasing and development within one mile of active and historic raptor nest sites and in areas on which soils have the following properties: wind erodibility index>100, saline, sodic, saline- sodic, 2:1 clays, sand dunes, slopes>25%, slumps, difficult to reclaim. Exceptions should be made where leasing proponents and coal mine operators develop a raptor mitigation plan that is reviewed and approved by the USFWS that protects raptor nesting success. Reclamation research and mine reclamation practice has developed techniques to reclaim hard to reclaim soils and steep topography. Reclamation standards for mining on all soils are under the Wyoming Environmental Quality Act (WQA) and enforced under State primacy by WDEQ-LQD through that agency's | See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. A range of alternatives is analyzed for raptor nest protections and buffers in Chapter 2.2.6 management action 4430. A range of alternatives are analyzed for other leasable minerals in Chapter 2.2.6 management actions 2400-2419. Assumptions for analysis can be found in 4.7.1. |

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| | | regulations and mine permits. With appropriate limitations and mitigation requirements for the protection of other resources values, all BLM-administered public lands and federal coal lands in the Rock Springs planning area, except for those lands identified as closed, would be open to coal resource inventory and exploration to help identify coal resources and their development potential (Table 2-7 in Appendix V, Map 2-10). Industry position: Acceptable Reason: Table 2-7 in Appendix V and Map 2- 10 show that the all BLM-administered public land and federal coal lands in the Rock Springs planning area are open for coal leasing and development except the most environmentally sensitive areas. Same as Alternative A. Industry position: Not acceptable Reason: Coal leasing and development should not be closed within ¼ mile of 100-year flood plains, wetlands, riparian areas, perennial streams, and within 500 feet of large ephemeral drainages (Appendix V Table 2-7- page V-14). Practices for runoff control, erosion and sediment control are well developed conservation measures and are applied by the coal industry. The WDEQ-LQD under the WQA and through their regulations and mine permits has regulatory authority over mining activities in these areas. Alternative C is acceptable. | |
| 816.03 - Raptors | #13787-59 | MA #4428 BR-21, BR-24, BR-35 Active and historic raptor nesting sites would be protected and managed for continued nesting activities. An active raptor nest is one that has been occupied within the past three years; a historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The appropriate level of protection would be determined on a case-by- case basis depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. Different species of raptors may require different types of protective measures (Appendix J). Industry position: Not acceptable Reason: Industry supports distance restrictions in Appendix J for Alternative A and the importance of protecting occupied nests and future nesting opportunities. Industry favors distance restrictions for "occupied nests" as opposed to "active" nests that are not occupied. Industry disagrees with the definition BLM assigns to "active nest" as one that has been occupied within the past three years. This definition contradicts the memorandum dated June 14, 2018, issued by the USFWS Assistant Director, Migratory Birds to Regional Directors on the Subject "Destruction and Relocation of Migratory Bird Nest Contents. Footnote 2 on page 1 of that memorandum states "An active nest is one that contains viable eggs and/or chicks. A nest becomes active when the first egg is laid and remains active until fledged young are no longer dependent on the nest. Nests that are empty, contain non-viable eggs, are being built but do not have an egg in them are considered inactive." USFWS guidance should be followed since that agency has the primary jurisdiction over raptors, their nests, eggs, and young. The term historic raptor nest is properly defined here per the current RMP as follows: historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The term "etc." must be removed here because it is too open ended and specific historic raptor nesting areas as presented in the current RMP must be defined. Protect occupied nests and historic raptor nesting sites and associated feeding areas and manage for continued nesting activities. Determine, on a case-by-case basis, the appropriate level of protection depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. Different species of raptors could require different types of protective measures (Appendix J). Industry position: Not acceptable Reason: Appendix J for Alternative B sets a restricted area of two miles from active and historic nests for all raptor species. This distance exceeds the guidance for all raptor species in USFWS Wyoming Ecological Services Field Office March 9, 2022, guidance document Table 1 which sets distances for each applicable raptor species except bald eagles. Distances in that guidance range from 0.25 miles to 1.00 mile depending on species. Specific buffer distance recommendations for bald eagles in the USFWS California and Nevada dated May 2021 is 1 mile except for all activities except for blasting and other loud non-regular noises which is 2 miles. USFWS guidance should be followed since that agency has primary jurisdiction over raptors, nests, eggs, and young. Industry also notes a disagreement between the definition of Historic Raptor Nest on Glossary page GL-14 and Appendix J seasonal closure restrictions and restricted areas. The definition of Historic Raptor Nests in the Glossary states that "Temporal and special stipulations will not apply." Appendix J applies seasonal restrictions and restricted areas to historic nests in Alternatives B and D. Protect occupied raptor nesting sites and managed for continued nesting activities. Determine, on a case-by-case basis, the appropriate level of protection depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. Different species of raptors could require different types of protective measures (Appendix J). Industry position: Not acceptable Reason: Industry supports the language in Alternative C but notes a contradiction between Alternative C language which uses "occupied nests" and Appendix J (J.3) Alternative C which uses "active nests." No similar action (see other actions in this section) Industry position: Not acceptable. Reason: Industry notes that Appendix J (J.4) Alternative D contains a 2-1/2 mile restricted area distance from occupied and historic bald eagle nests. This distance exceeds USFWS recommendations referenced under Alternative A. Industry also notes a disagreement between the definition of Historic Raptor Nest on Glossary page GL-14 and Appendix J seasonal closure restrictions and restricted areas. The definition of Historic Raptor Nests in the Glossary states that "Temporal and special stipulations will not apply." Appendix J applies seasonal restrictions and restricted areas to historic nests in Alternatives B and D. Protect occupied raptor nesting sites for continued nesting activities. Determine case by case the appropriate level of protection depending on species, topography, line of sight distances. Additional protective measures to ensure future nesting will be determined case by case. USFWS | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | distance guidance and definitions of active nests will be followed. BLM must continue to refer to historic raptor nests as currently approved in the RMP per Alternative A or remove those references entirely. Language is taken from Alternative C, but excludes the reference to Appendix J active nests. | |
| 816.03 - Raptors | #13787-60 | MA #4430 BR-21, BR-24, BR-35 Project components, such as permanent and high-profile structures, e.g., buildings, storage tanks, power lines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than ½ mile) would be determined on a case-by- case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within ½ mile of active raptor nests, in certain circumstances (Appendix J). Industry position: Not acceptable Reason: Alternative A is working as can be demonstrated by good raptor numbers in the area. However, surface facilities can often be located outside of an appropriate distance of ½ mile. In instances where ½ mile is not feasible in the KSLA allowance should be made for mitigation that does not disrupt the future nesting success of the raptor pair. Industry also notes that this MA and Appendix J (J.1) Alternative A applies to "active nests" presumably the BLM definition of active nest. USFWS definition of active nest should be used. Prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds. This includes project components such as permanent and/or high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.). Manage as: 1) NSO for fluid minerals; 2) closed for coal and sodium prospecting; 3) closed to material sales; 4) avoidance area for new rights-of-way. Buffer recommendations could be modified on a site-specific or project-specific basis based on field observations and local conditions. Infrastructure (or facilities) that have potential to cause direct avian mortality (e.g., wind turbines, guyed towers, airports, wastewater disposal facilities, transmission lines), would follow USFWS recommendations to locate structures away from high avian- use areas such as those used for nesting, foraging, roosting or migrating, and the travel between high-use areas. Industry position: Not acceptable Reason: Industry supports locating surface facilities so that impacts to raptors are prevented whenever feasible. A 1-mile prohibition is excessive. When surface facilities must be located to support leasable mineral extraction in the KSLA effective mitigation measures should be employed with the cooperation with the cooperation of BLM and USFWS and WGFD as necessary. The concept of historic raptor nests is being taken out of context under Alternative B. The current RMP uses the concept of historic raptor nest only for very specific locations. Project components, such as permanent and high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.) are restricted within an appropriate distance of occupied raptor nests. The appropriate distance (usually less than ½ mile) would be determined on a case-by- case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. * CSU for fluid minerals. Industry position: Not acceptable Reason: Industry largely agrees with this language except that language should be added that exceptions to the restriction are considered with implementation of effective mitigations within the KSLA. Mitigation measures will protect future nesting. Allow surface occupancy within the identified buffer of occupied and historic raptor nests, subject to adequate mitigation of impacts following BLM mitigation policies. This includes project components such as permanent and/or high- profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.). Ferruginous hawk - ½ mile Bald eagle - one mile Golden eagle - ¼ mile Burrowing owl - ¼ mile General raptor - ¼ mile * CSU for fluid minerals. Modify buffer recommendations, on a site- specific or project-specific basis, based on field observations and local conditions. Require implementation of USFWS recommendations to locate structures away from high avian-use areas such as those used for nesting, foraging, roosting or migrating, and the travel between high-use areas on infrastructure (or facilities) that have potential to cause direct avian mortality (e.g., wind turbines, guyed towers, airports, wastewater disposal facilities, transmission lines). Industry position: Not acceptable Reason: The language of this MA is largely acceptable. Industry recognizes the need to protect raptor nesting success in areas of needed surface facilities. However, this MA should clearly state that buffer distances can be modified on a site-specific basis in the KSLA with the development of an appropriate mitigation and monitoring plan to protect nesting success and future nesting success in the nesting territory. The concept of historic raptor nests is being taken out of context under Alternative B. The current RMP uses the concept of historic raptor nest only for very specific locations. Allow surface occupancy within the identified buffer of occupied raptor nests subject to adequate mitigation of impacts following BLM mitigation policies. This includes permanent and high-profile structures (e.g. buildings, tanks, powerlines, roads, well pads, etc.). Identified buffers are: Ferruginous hawk - ½ mile Bald eagle - 1 mile Golden eagle - ¼ mile Burrowing owl - ¼ mile General raptor - ¼ mile Modify buffer recommendations on a site- specific or project-specific basis based on field observations and conditions. Require implementation of USFWS recommendations to locate structures away from high avian-use areas such as nesting, foraging, roosting, migrating, travel between high-use areas. Infrastructure with potential to cause direct avian mortality includes wind turbines, guyed towers, airports, wastewater disposal facilities, transmission lines. Allowance will be made in the KSLA for site-specific and project-specific mitigation and monitoring plans in consultation with USFWS, BLM, WGFD, and WDEQ-LQD to protect present and future raptor nesting success in areas where surface facilities are needed for leasable trona. Language is taken from Alternative D with additions. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 816.03 - Raptors | #13787-61 | MA #4431 BR-21, BR-24, BR-35 Nesting raptors would be protected by restricting disruptive activities seasonally within a ½-mile to one-mile radius of occupied raptor nesting sites. Industry position: Not acceptable Reason: Industry respects the need to protect occupied raptor nests with appropriate distances. Distance determinations should be made case by case and be project specific with appropriate specific mitigation and monitoring plans. Restrict surface disturbing and disruptive activities seasonally within a two-mile radius of occupied nests and historic raptor nesting sites and associated feeding grounds to protect nesting raptors. Industry position: Not acceptable Reason: A two-mile protective radius is excessive for occupied nests and not necessary for historic nests. Site-specific and project-specific mitigations can be applied to reduce the protective radius. Restrict surface disturbing or disruptive activities seasonally within a ½-mile radius of occupied raptor nesting sites to protect nesting raptors. Industry position: Not acceptable Reason: Industry supports a 1/2-mile buffer around occupied raptor nests, but allowance should be made for site-specific and project-specific mitigation and protective measures. Avoid surface disturbing and disruptive activities seasonally within the identified buffer of occupied nests and historic raptor nest sites (Appendix J). Industry position: Not acceptable Reason: Appendix J sets a protective distance of 2-1/2 miles for occupied and historic bald eagle nests and 1 mile for occupied and historic ferruginous hawk nests. Industry recognizes the need for a larger protective distance for these two species relative to other raptor species and for the need to protect nesting success of occupied nests and future nesting. However, in the KSLA allowance should be made appropriate site- specific and project-specific mitigation and monitoring where surface facilities are needed to support leasable trona. Avoid surface disturbing and disruptive activities within ½ mile of occupied raptor nests whenever possible. Variances will be developed on a site-specific, project-specific, and species-specific basis in cooperation with USFWS, WGFD, and BLM. When surface facilities are needed to support leasable trona production in the KSLA mitigation and monitoring measures will be developed that protect occupied nests and future nesting in the nesting territory. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13787-62 | MA #4432 BR-21, BR-24, BR-35 In the JMH planning area, temporary disturbances associated with placement of facilities such as pipelines and other actions such as seismic activities can be allowed within ½ to one mile of active raptor nests. Industry position: Not applicable Reason: Specific to JMH See MA #4431 | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13787-63 | Industry position: same as MA #4431 Same as MA #4431 MA #4433 BR-21, BR-24, BR-35 In the JMH planning area, disruptive activities would be seasonally restricted within a ½- to one-mile radius of occupied raptor nesting sites. Raptor nest surveys would be conducted within a one- mile radius or linear distance of proposed surface uses or activities during raptor nesting season. Seasonal limitations may be excepted, provided criteria in Appendix B can be met and appropriate mitigation can be implemented (as determined by the BLM). Mitigation of adverse effects (e.g., noise and traffic) on all habitats would be determined and applied on a case-by-case basis. Industry position: Not applicable Reason: Specific to JMH | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13787-64 | MA #4434 BR-21, BR-24, BR-35 Raptor nest surveys would be conducted within a one-mile radius, or linear distance of proposed surface uses or activities, if such activities are proposed to be conducted during raptor nesting seasons, usually between February 1 and July 31. Industry position: Not acceptable Reason: Raptor nest surveys should not be required if the surface disturbing activity is not in an area of raptor nesting habitat. A requirement for raptor nest surveys should be case by case. Conduct raptor surveys (for nesting, roosting, and foraging) within up to a four- mile radius of surface disturbing or disruptive activities based on the extent and nature of the proposed action. Industry position: Not acceptable Reason: Industry agrees with raptor survey in the area around proposed surface disturbance that is proposed to occur during the nesting season in areas of raptor nesting or in the area of permanent or long duration surface facilities. The requirement should be case by case. A four-mile radius is excessive; ½ to 1 mile is acceptable based on species expected to occur in the area. Once occupied nest(s) are located raptors can be expected to forage within 4 miles of the nest because most of their hunting will be within their nesting territory. Same as Alternative A. Industry position: Not acceptable Reason: Industry agrees in large part with this MA in order to protect active raptor nests and future nesting when and where surface facilities are needed. Industry desires to add that nest surveys should be done case by case where suitable raptor nesting is identified. Conduct raptor nest surveys within one mile of proposed surface uses or activities, on a case-by case basis, if suitable raptor nesting habitat is identified. Industry position: Not acceptable Reason: Industry agrees with this language but would add if surface disturbing activities are proposed to occur during raptor nesting season. Conduct raptor nest surveys within 1 mile of proposed surface uses or activities on a case-by-case basis if suitable raptor nesting habit is identified and if such activities are proposed to occur during the raptor nesting season. This is Alternative D but only applicable if surface disturbing activities are proposed to occur during the raptor nesting season. | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13811-7 | In addition, defining and delineating "feeding grounds" without specific guidance does not provide certainty for project proponents. Furthermore, some species, ferruginous hawks for example, may use multiple feeding areas with each area encompassing tens to hundreds of acres. Requiring a one-mile buffer around a nest site and multiple feeding areas places an unreasonable burden on project proponents. BLM could retain its discretion to determine "appropriate distance" on a case-by-case basis and thereby achieve the same conservation interests instead of imposing the rigid and significantly more burdensome categorical prohibition in Alternative B. | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4431. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 816.03 - Raptors | #13811-8 | Alternative B would also expand the restrictions from active nesting sites to active and historic nesting sites. "Historical raptor nests" means "[a]ny raptor nest or site that has been destroyed but was historically recorded and documented."22 Such a restriction could conceivably apply to any tree or cliffside now, or in perpetuity, as additional sites are discovered. This restriction imposes a vague and overly restrictive regulatory regime on Pacific and puts into jeopardy any project going forward. For existing operations, any expansion opportunity would be similarly restricted, not only with respect to current active raptor nests, but any historical nest ever documented. Such a broad expansion of regulatory restrictions creates uncertainty for existing and future operators who have been making critical project decisions based on the need to avoid active nests only. In addition to regulatory uncertainty, expanding the buffer zone from ½ mile to one mile of both current and historic raptor nest sites would impose significant additional monitoring burdens on any and all of Pacific's projects in the Planning Area without achieving any clear conservation goals that are not already managed through the ½-mile buffer. BLM provides no scientific basis for this proposed expansion or for including historic raptor nests in the regulatory regime. Furthermore, both of these proposed changes depart from the coordination between the State of Wyoming and the U.S. Fish & Wildlife Service that typically precedes such changes. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for coordination with other agencies. |
| 816.03 - Raptors | #13831-11 | Appendix B - Management #4430 - Raptor Nests: States that there shall be no surface occupancy within a 1-mile radius of raptor nests. It further specifically identifies airports as infrastructure that have the potential to cause direct avian mortality. o Map 3-4 shows a raptor nest right on the edge of the airport property (western side on the approach to Runway 9). This would eliminate the ability for surface occupancy on BLM managed lands within 1 mile which would once again have an adverse impact on any development around the airport. Surface occupancy is defined as, "Placement or construction on the land surface of semi-permanent or permanent facilities requiring continual service or maintenance". The Airport Board sees this once again impacting infrastructure leading to the airport including the roadway, water, sewer, gas, and electric. | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4430. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13865-21 | F. MA # 4427 The overlap of seasonal closures for vehicle travel in all alternatives of MA #4427 would block necessary travel and access for PacifiCorp. This includes areas that BCC is mandated to monitor as a permit requirement. Denying access to conduct monitoring by the seasonal closure of roads could put BCC in violation of its DEQ Land Quality Division Permit to Mine. These road closures would also limit reclamation activities of BBC and other PacifiCorp projects. Vehicle travel must be allowed when needed to access PacifiCorp's projects, power lines, and other assets year-round for O&M activities and during emergencies. The extended duration of seasonal closures is problematic because it narrows the window in which certain areas can be accessed and work performed. The cumulative closure period for all wildlife resources combined in MA #4427 is from November 15 to June 30 (for Alternative D) or July 31 (for Alternatives B and C), which leaves utilities with August 1 to November 14 to perform work. This is not sufficient time to complete necessary O&M or construction. In addition, closing vehicle traffic in raptor nest areas is contradictory for locations where raptors nest on utility infrastructure and can require nest management or other O&M work during the nesting season. Restricting access would prevent PacifiCorp from complying with its APP, company avian policies, and commitments to the USFWS that require timely retrofitting of poles with eagle or migratory bird mortalities. Likewise, PacifiCorp has agency mandated timeframes to respond to facility conditions. Failure to meet these timeframes puts the company at risk of substantial fines, regulatory noncompliance, and safety concerns. PacifiCorp recommends that the BLM adopt Alternative A under MA#4427, and allow vehicular travel when necessary. PacifiCorp also recommends that all seasonal buffers be waived for emergency work and time sensitive O&M or repairs. | See Chapter 1.4 Planning Criteria for valid and existing rights. A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2.2.6 management action 4427. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13865-22 | G. MA # 4428 Alternatives A and B of MA #4428 are overly broad, overstep BLM's authority by attempting to regulate migratory birds, and conflict with guidance issued by the USFWS. USFWS is the agency with authority to regulate raptor conservation and take under the MBTA and BGEPA. While BLM has the authority to regulate habitat on BLM-managed lands, the agency does not have the authority to regulate raptor species. By setting nest criteria that contradicts that of the USFWS, the BLM is overstepping its authority. In addition, the BLM fails to analyze how these contradictory measures reflect current best science or offer tangible benefits to raptors. Under Alternatives A and B, "protections" would be afforded to nests that are not currently active or occupied; this is illogical as it does not afford protection to these species if nests are vacant and contradicts with USFWS guidance. Protections for raptor nest sites should apply only to verified occupied nests in the current year an activity is being performed, not historic nest sites. In addition, changing from species-specific buffer distances to blanket buffer distances is arbitrary and does not account for the unique biology of each species. The following are specific concerns with language in MA #4428: ? Consistent with USFWS guidance, protections for raptor nest sites should apply only to verified occupied nests in the current year an activity is being performed, not historic nest sites. The USFWS memorandum "MBPM-2" (Migratory Bird Permit Memorandum, April 15, 2003), states: "The MBTA does not contain any prohibition that applies to the destruction of a migratory bird nest alone (without birds or eggs), provided that no possession occurs during the destruction." Since the publication and implementation of national APP Guidelines in 2005 between the USFWS and the Avian Power Line Interaction Committee (APLIC), the USFWS directive to electric utilities has been that "active" nests are "those with eggs or young present" (APLIC and USFWS 2005; APLIC 2006). USFWS allows for destruction of migratory bird nests, yet BLM is proposing significant buffers for such nests under Alternatives A and B of MA #4428. While utilities do not remove or destroy | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and coordination with other agencies. |

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| | | inactive nests unless necessary due to a safety or fire risk, the application of buffers around such nests is an unnecessary restriction against the safe operations and maintenance of electrical infrastructure. ? Under Alternative A of MA #4428, BLM identifies an active nest as "one that has been occupied within the past three years." This contradicts the USFWS directive, which has been implemented effectively for two decades under MBPM-2, and defines active nests as those with eggs or chicks. PacifiCorp recommends that the BLM adopt the USFWS definition of an active nest as those which contain eggs or chicks. ? Under Alternative A of MA #4428, BLM defines a historic nesting site as "an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors." The basis of this definition is questionable, as topographic relief is unrelated to historic nesting activity. Active nests, as defined by USFWS, would be protected from disturbance by nest buffers. BLM's concern to maintain historic nests sites would be addressed by active nest buffers and by USFWS authority over nest destruction. ? The term raptor "feeding areas" used in Alternative B of MA #4428 is far too vague and expansive to be useable or practical, and should be removed as an alternative. Indeed, nearly all of the RSFO could potentially fall under the category of a "raptor feeding area." Different raptor species have varied and complex life cycles and feeding areas may be focused in different locations based upon season and a variety of conditions. Feeding areas could include locations around nests, concentrations near winter roost areas, large landscapes used for migration, and wintering areas. Likewise, some raptors may perch hunt from power poles or other infrastructure, resulting in nonsensical feeding buffers around anthropogenic features. Raptors are not particularly sensitive to human activities near feeding areas, nor would activity in these areas be detrimental to their life cycle in most situations. This is particularly true of utility O&M activities that are typically limited in footprint and short in duration. Feeding areas are much less sensitive to disturbance impacts than nest areas; consequently, active nest buffers would provide more appropriate protection to raptors. PacifiCorp recommends that the BLM remove restrictions or buffers around "raptor feeding areas." ? PacifiCorp concurs that topographic barriers may influence buffers. For example, if there are significant topographic features between an activity and a nest, a nest buffer distance may be reduced since the activity may not be seen or heard by the nesting birds. ? Activity types around raptor nests should also be considered when identifying nest buffers. Buffers should be applied for new construction activities; however, routine maintenance and emergency activities should be exempted from buffers as these activities are typically short in duration, pose minimal disturbance risk, and are necessary for safety and reliability reasons. Raptor protections should include allowing a biologist to monitor occupied raptor nests while work is being done inside raptor nest buffers if it is appropriate for the species and type of work. In many locations within the RSFO, harsh winter conditions and associated restricted access limit construction windows and necessitate construction during the summer months. Utility APPs identify activity types and nest protection measures, which may range from seasonal/spatial buffers for new construction, use of biological monitors for projects that may extend more than several hours, or no buffers for necessary work within shorter durations. PacifiCorp recommends that the BLM allow utilities to continue these practices, which have been established with and undergo ongoing review by USFWS. ? MA #4428 fails to recognize that utility infrastructure can create nesting substrates for raptors, including several species listed as BLM Wyoming Sensitive Wildlife Species (bald eagle [BAEA], peregrine falcon [PEFA], and ferruginous hawk [FEHA]). Implementing buffers around utility infrastructure could impact safe operations and maintenance of the electric grid. Necessary O&M work on utility infrastructure within nest buffers should be exempted from buffer restrictions as detailed above, and instead managed under APPs and USFWS permits/agreements. ? PacifiCorp concurs that different raptor species require different disturbance buffers, and encourages the BLM to use buffer distances that are consistent with USFWS guidance for eagles and other raptors (see Romin and Muck 2002; USFWS 2007; USFWS 2022). These documents are applicable within the USFWS Region 6 area, and have been effectively used by the USFWS and industry for two decades. Appendix J of the DEIS includes seasonal wildlife restrictions, with dates and buffers for various raptor species. Alternatives A, B, C, and D all differ from USFWS guidance for various species, and PacifiCorp recommends that the BLM modify its alternatives to align with USFWS guidance. Specifically, PacifiCorp recommends the following: o Appendix J.1. Alternative A is consistent with USFWS for golden eagles (GOEA) with a ½ mile buffer; however, other distances contradict USFWS guidance (other raptors have a blanket buffer of ½ mile under BLM vs. species-specific buffer distances under USFWS). o Appendix, J.2. Alternative B uses blanket buffer distances "within 2 miles of active and historic nests." This is overly restrictive, contradictory with USFWS guidance, and appears only to restrict and hinder development and operations of permittees. Likewise, BLM fails to justify the need for buffers beyond USFWS recommendations, and fails to document the biological benefits of the blanket buffer distances to the various species. o Appendix J.3. Alternative C implements a blanket buffer distance of ½ mile of active nests. Under this alternative, buffers only apply to active nests, which is consistent with USFWS. However, the buffer distance is inconsistent with USFWS guidance, which uses species specific buffers that are 1/8, ¼, ½, or 1 mile depending on the species. PacifiCorp recommends that the BLM modify this alternative to use buffer distances consistent with USFWS. o Appendix J.4. Alternative D applies differing buffer distances around "occupied and historic nest sites." Buffers around historic nests are overly restrictive, contradictory with USFWS guidance, and appear only to restrict and hinder development and operations of permittees. Likewise, BLM fails to justify the need for buffer distances beyond USFWS recommendations, and fails to document biological benefits to species for buffers around historic or unoccupied nests. On some projects in other BLM Field Offices, PacifiCorp has been required to monitor historic nests; this | |

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| | | has resulted in increased project costs and none of the historic nests have been subsequently used in future years. Rather, the nests continue to deteriorate over time. PacifiCorp does not want the BLM to perpetuate such a requirement, as there is no biological reason or benefit to justifying protections or surveys of unoccupied and dilapidated nests. As stated previously, USFWS nest protections apply only to active nests because there is not a biological reason or regulatory requirement to implement a buffer around an inactive nest. Under this alternative, BLM buffer distances for GOEA, FEHA, and burrowing owl (BUOW) are the same as USFWS guidance; however, BLM buffer distances conflict with USFWS for BAEA and "general raptor." BLM fails to explain why a 2.5-mile buffer is used for BAEA (occupied and historic nests), when USFWS guidance is 330ft or 660ft, depending on the visibility of the activity (USFWS 2007). As noted previously, a blanket buffer of ½ mile for other raptors is inconsistent with USFWS guidance, which uses species-specific buffers that are either 1/8, ¼, ½, or 1 mile. o All alternatives under Appendix J provide broad nesting dates. There should be flexibility to adapt nest buffer dates based on the actual nest activity dates. For example, buffers for Swainson's hawks (SWHA) should not begin on February 1, as this species does not return from migration until well after this date (USFWS buffer dates start on April 1 for SWHA). Likewise, if an active raptor nest has fledged by June 25, the buffer should not be held until August 15. This is consistent with USFWS guidance regarding protection of active nests and reflects the spirit of MBTA to protect nests while they are active. o None of the alternatives under Appendix J are consistent with the lead agency (USFWS) for these species. Therefore, PacifiCorp questions the adequacy of BLM's analysis for nest buffers, including consistency with other agency recommendations. PacifiCorp recommends that the BLM modify Alternative C to use species-specific buffer distances consistent with USFWS established buffers (see USFWS 2022), and maintain these buffers around active nests only, not historic nests. Likewise, buffer dates should be adaptable to actual dates of nesting activity as described above. In addition to the above concerns with MA #4428, PacifiCorp notes that the BLM has failed to consider current USFWS regulatory changes to MBTA and BGEPA. USFWS is currently revising the regulations pertaining to bald and golden eagle permits (50 CFR Part 22) and contemplating making available permits to take other migratory birds protected under the MBTA. Should a company obtain either of these permits, raptor nest restrictions in the permits should supersede raptor nest restrictions in the BLM's Management Plan. Likewise, current utility SPUT or Eagle Take Permits (ETP) issued by USFWS, as well as Chapter 33 permits issued by WGFD, should supersede BLM RMP management actions regarding nests of eagles and migratory birds. PacifiCorp recommends that the BLM adopt Alternative C of MA #4428, with the modification to Appendix J as detailed above. PacifiCorp recommends that this modification to MA #4428 also be used instead of Alternative A of MA #4429. | |
| 816.03 - Raptors | #13865-23 | H. MA #4430 MA # 4430 establishes No Surface Occupancy (NSO) restrictions for facilities within raptor nest buffers under all alternatives and is an excessive and unnecessary burden on industry for which BLM has failed to analyze associated impacts. Many of the concerns identified under our prior comments for MA #4428 also apply to MA #4430, including protections around historic or inactive nests, and feeding areas, and buffer distances that are inconsistent with USFWS guidance. Likewise, MA #4430 fails to recognize that numerous raptor species use infrastructure, such as power poles, for nest substrates. This MA also contradicts USFWS guidance by creating NSOs rather than buffers, and fails to apply industry best practices that prevent or mitigate potential negative impacts. Best practices for the electric utility industry, developed by APLIC and USFWS (see APLIC and USFWS 2005, APLIC 2006, APLIC 2012) apply avian-safe construction methods to prevent bird mortalities associated with power lines. Likewise, wind energy developments implement various raptor protection measures in coordination with USFWS. PacifiCorp recommends that the BLM remove all NSO requirements around raptor nests under MA #4430 and rather allow new infrastructure that follows current industry best practices for avian protection, such as APLIC guidance. PacifiCorp proposes that the language for Alternative C under MA #4430 be modified and accepted as: "Project components, such as permanent and high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.. ) are allowed within occupied raptor nest buffers if the projects utilize current industry best practices for avian protection and are constructed outside of the appropriate seasonal and spatial buffers for the species." | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4430. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13865-24 | I. MA #4431, #4432, and #4433 MA #4431 is duplicative of MA #4428. Consequently, PacifiCorp reiterates its comments regarding buffer distances, feeding grounds, and occupied vs. historic nests detailed under MA #4428 here. PacifiCorp recommends that the BLM adopt the above comments under MA #4428 and refer to MA #4428 under MA #4431. PacifiCorp also recommends that MA #4432 and #4433 reference the proposed changes to MA #4428. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13865-25 | J. MA #4434 MA #4434 requires raptor nest surveys within buffer distances that are in excess of what would be required to identify and protect nests, particularly under Alternative B, which requires surveys within a 4- mile radius of projects. The BLM fails to analyze or justify this 4-mile radius, or explain why it differs from established guidance from USFWS or through existing permits. ? BCC current mine permits and USFWS requirements require raptor surveys within two miles of the mine permit boundary, which is inconsistent with the BLM's 4-mile radius; ? In the absence of existing USFWS guidance or other permit requirements, survey efforts should align with the buffer distance for a species, rather than basing the distance on a blanket 1- or 4-mile radius. For example, per USFWS (2022), FEHA buffers are 1 mile; consequently, a nest survey radius for FEHA should be 1 mile. For | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | GOEA, prairie and peregrine falcons, and American goshawk, the buffers recommended by USFWS are 0.5 mile; therefore, the nest survey radius for these species should be 0.5 mile. By using survey radius based on the species, efforts can be focused on the suitable habitats for particular species within the project area. This is more targeted and cost effective than a blanket approach and will still identify and satisfy raptor nests and buffer needs; and ? Alternative A stipulates that nest surveys would need to be completed only if construction is to occur during the nesting season. Importantly, this limitation on the need for surveys is missing from Alternatives B and D, and is necessary because nest surveys should not be required if construction is to occur outside of the nesting season. PacifiCorp recommends that the BLM adopt Alternative D of MA #4434 with a change in language from "within one mile" to "within appropriate buffer distances for the species." | |
| 816.03 - Raptors | #13865-30 | In addition, map 3-4 (Raptor Nest Sites) has an error. Canada goose and common raven are listed and included under 'Occupied Raptor Nests' in the Raptor Nest Sites Map 3-4. Neither one of these species should be listed as a raptor. | See updated map 3-4. |
| 816.03 - Raptors | #13865-31 | O. Bridger Coal Company BCC has a USFWS-approved Migratory Bird Protection Plan and Raptor Mitigation Plan that is incorporated in the Company's Permit to Mine and updated and approved every five years. The last update and approval occurred in 2022. BCC should be allowed to operate under the USFWS approved plan and is concerned that the BLM restrictions would conflict with permits and plans already in place. There is concern that BLM-proposed buffers around inactive nests would interfere with BCC's ability to conduct nest monitoring and management. BCC possesses USFWS and WGFD permits that authorize it to relocate raptor nests from mine pit walls to nest platforms, which are typically located near mine operations otherwise birds may abandon the nests if they are moved too far. These relocated nests may fall within buffer distances or NSO distances (see MA #4430) under the draft RMP, presenting a conflict between BLM proposed stipulations and existing USFWS and state permit requirements, agreements, and long established protocols. BCC has monitored raptors for 45 years inside the permit boundary and for a two mile radius outside of the permit boundary, and have documented over 500 active and historic nests. BLM-proposed buffer restrictions around historic nests would prevent BCC from operating from February 1- August 15 of each year. This would result in significant economic impacts, threaten the ability to provide electricity to customers, and impact BCC's environmental and mining regulatory compliance, including reclamation. Reclamation activities are conducted year-round to prepare reclamation areas to meet the short seeding window in the fall. Inactive nest buffers, coupled with seasonal road closure restrictions, would also impact the required raptor and other wildlife monitoring that BCC is required to conduct per its Permit to Mine. The questionable benefit of buffering historic nests is again a concern, as BCC has data from the last 45 years of raptor monitoring that shows an increase in raptors in an area without historic nest buffers. BCC is able to provide this data to BLM upon request. | See Chapter 1.4 Planning Criteria for compliance with valid and existing rights. A range of alternatives is analyzed for raptor nest protections and buffers in Chapter 2.2.6 management action 4430. Assumptions for analysis can be found in 4.7.1. |
| 816.03 - Raptors | #13865-46 | Finally, the effects of buffering around historic raptor nests in both Alternative B and Alternative D have the same effect on BCC's and PacifiCorp's operations. BCC is required to monitor raptor territories and nests within its permit area. BCC created maps illustrating buffers around all active and historic nests as defined in the RMP and found that both Alternatives B and D as written would have a significant negative impact on operations, including reclamation. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with valid and existing rights |
| 816.03 - Raptors | #13865-47 | [comment:13865-47; 824, 827]. In addition to the inconsistencies already discussed, Alternative B will create regulatory inconsistencies across BLM field offices and is beyond the scope of BLM regulation. There must be consistency across BLM field offices. For linear utilities or any project that straddles field office boundaries, changing how any resource is managed within multi-agency process driven protocol is going to result in confusion, inconsistencies, and the immediate need for variances and exceptions. Disregarding the VRM process or Section 106 process that ultimately finds its way to SHPO so that affects are seen differently than all other BLM Field offices will create inconsistent evaluation of the same resource. Alternative B exceeds BLM regulatory authority by, for example, changing avian seasonal stipulations and buffers that have been established by other agencies is beyond the scope of a land management agency.[comment end] | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and coordination with other agencies. |
| 816.03 - Raptors | #13865-53 | .1.2. Perch discouragers are not the current best practices and can cause unintended negative consequences including increased electrocution risk for eagles or other raptors, increased likelihood of raptor and raven nesting on discouragers, and safety and operational concerns (APLIC 2006, 2015). Perch discouragers were widely used from the 1970s to 1990s to address avian electrocution risk; however, data over the past two decades has documented poor effectiveness of perch discouragers and greater effectiveness of other techniques to prevent avian mortality. Likewise, research has demonstrated limited effectiveness of discouragers in preventing perching or nesting (see APLIC 2015 for a summary of research studies). PacifiCorp's field surveys conducted from 2001 to present have documented that poles with perch discouragers have electrocution mortality rates over three times greater and raptor/raven nest rates over four times greater than poles without perch discouragers. Consequently, as part of its APP and agreements with USFWS, PacifiCorp has removed perch discouragers from its avian protection standards. Requiring perch discouragers as a project design feature would conflict with our APP and USFWS directives, and potentially result in mortality of eagles or other migratory birds. Perch discouragers can also interfere with the ability of line crews to safely climb or work around the deterrents, posing safety risks to | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. See Appendix A.1.1 for discussion of Project Design Features. |

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| | | employees. In harsh conditions, such as high wind and UV exposure experienced by equipment in the RSFO, discouragers can break down quickly, risking the discouragers falling into energized lines and leading to outage or fire hazards. In addition, depending on structure configurations, clearances, and discourager size/placement, discouragers may not be feasible due to NESC or engineering considerations. Because of the reasons detailed above, PacifiCorp requests that the BLM remove perch discouragers or deterrents as a project design feature. Rather, industry best practices should be referenced (e.g., APLIC guidance documents). | |
| 816.03 - Raptors | #13865-56 | "Equip tanks and other above-ground facilities with structures or devices that discourage nesting and perching of raptors and corvids." As discussed previously under the perch discourager section above, such devices are ineffective and have unintended negative consequences. Consequently, PacifiCorp recommends that this stipulation be removed from the Appendix or clarified that it does not apply to electrical infrastructure. | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. See Appendix A.1.1 for discussion of Project Design Features. |
| 816.03 - Raptors | #13865-66 | "Construct or modify vertical structures in a manner that prevents nesting or perching by scavengers or raptors." As detailed previously, perch discouragers are ineffective and have unintended negative consequences. It is contradictory that the DEIS proposes significant buffers around raptor nests, including inactive nests, yet contains a RDF directing the prevention of raptor nesting and perching. Wildlife habitat conservation and improvement can be much more effective in aiding sensitive prey species productivity and survivorship than attempts at perch and nest management. It is also important to note that raptors and corvids are protected by MBTA and devices intended to restrict their perching or nesting can potentially result in takes of these species. Due to the unrealistic nature of this stipulation and the potential regulatory conflict with MBTA, PacifiCorp requests that the BLM remove it as a RDF. | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. See Appendix A.1.1 for discussion of Project Design Features. |
| 816.03 - Raptors | #13865-67 | Require raptor perch deterrents on power poles as a component of permit issuance or renewal according to Avian Power Line Interaction Committee (APLIC) 2012 standards (APLIC 2012. Suggested Practices for Raptor Protection on Power Lines and Mitigating Bird Collisions with Power Lines. http://aplic.org)." This stipulation incorrectly references APLIC documents and misrepresents APLIC guidance. APLIC (2012) is a document related to avian collisions with power lines, and does not discuss or recommend perch deterrents. APLIC documents that address perch discouragers include the 2006 Suggested Practices ('electrocution manual') and the 2015 sage-grouse BMP document; however, none of the APLIC documents recommend perch discouragers. Rather, APLIC documents discuss the unintended consequences of these products, associated risks, and offer other BMPs as alternatives. PacifiCorp has been an active member of APLIC since its formation in the late 1980s, has contributed to all of the APLIC guidance documents, and would be happy to provide an overview of APLIC materials to BLM staff upon request. In addition to the above corrections, APLIC is not a governing body that has standards or requirements; rather, APLIC is a working group of utility and agency biologists and engineers that provide guidance. PacifiCorp recommends that the BLM modify the above RDF to read: "Power lines should be constructed in accordance with current avian protection guidance issued by the Avian Power Line Interaction Committee (APLIC)." | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. See Appendix A.1.1 for discussion of Project Design Features. |
| 816.03 - Raptors | #13892-14 | Alternative B says the BLM will "Seasonally close vehicular travel in crucial and important wildlife habitats and during crucial and important periods (big game crucial winter ranges 11/15-4/30, deer parturition areas 5/1-6/30, elk calving areas 5/1-6/30, moose calving areas 5/1-6/30, raptor nesting areas 2/1-7/31)." Again, did the BLM mean vehicle closures would only apply in certain designated birthing areas, or wherever in the district these areas occur? Right now, the document states that it's wherever in the district these areas are located. When all these restrictions are overlaid, it would close a large portion of the RSFO to vehicular traffic for a large part of the year. There are hundreds of raptor nests scattered throughout the sagebrush ecosystem when all raptor species are considered, so vehicles would be unable to use these areas from February 1 to August 1, under the plain reading of BLM's plan. That information is not readily disclosed to the public in the DEIS. | See Glossary for a definition of 'parturition area' for big game. A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2.2.6 management action 4427. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13892-16 | Page 2-74 says the BLM will "Restrict surface disturbing and disruptive activities seasonally within a two-mile radius of occupied nests and historic raptor nesting sites and associated feeding grounds to protect nesting raptors." That would encompass a huge amount of ground throughout the RSFO for about six months of the year for raptor nesting. Is this really the BLM's intention? To restrict any human use of more than an hour throughout much of the district, for six months of the year? On paper, the BLM proposes to disallow most human use for six months of the year across a large swath of public land. | Restrictions apply to permitted activities, not casual use. See Glossary for definitions. |
| 816.03 - Raptors | #13892-22 | Map 3-4, is a map of raptor nests but includes nesting locations for ravens and Canada goose. Neither of these species are raptors and should not be included. | See updated Map 3-4. |
| 816.03 - Raptors | #13899-43 | The draft EIS has as a biological goal [BR-21], to "[m]aintain current and historic raptor habitat within the planning area to ensure long-term species sustainability and widely distributed functioning habitats in accordance with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act (1940)." The draft EIS also makes note of Raptor Concentration Areas (RCAs), with management actions related to these. However, BLM fails to identify where these areas are - a serious flaw in this draft EIS. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and coordination with other agencies. |

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| 816.03 - Raptors | #13899-44 | Of note, the draft EIS fails to adequately account for the impact on golden eagles, beyond the breeding season and the larger regional populations. Wyoming is home to the largest breeding population of golden eagles in the lower 48 states and provides critical habitat for wintering and migrating individuals; the state contains some of the most valuable areas for long-term conservation in the western United States | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and coordination with other agencies. |
| 816.03 - Raptors | #13899-45 | ? We strongly encourage management actions be aligned with the USFWS raptor guidelines, in regard to buffer sizes and seasonal windows, which varies by species and are based on the best available science118. As currently presented in the draft EIS, these are not consistent with USFWS. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws and coordination with other agencies. |
| 816.03 - Raptors | #13899-46 | ? MA 4418: Given the known conflicts with wind turbines, we are supportive of Alternative B, which prohibits renewable energy in Raptor Concentration Areas (RCA). | A range of alternatives for renewable energy projects in wildlife areas is analyzed in Chapter 2.2.6 management action 4418. |
| 816.03 - Raptors | #13899-47 | ? MA 4427: With the variable reaction of raptors (by species and individuals) to different road types and varying traffic volumes, we are supportive of a combination of[...] Alternative B and D. We believe the "case-by-case basis" for closure should apply for RCAs as well - not just big game habitats (as is currently stated for Alternative D). | A range of alternatives has been analyzed for seasonal vehicle closures in Chapter 2.2.6 management action 4427. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13899-48 | ? MA 4428: We are concerned with the weakening of protections for raptor nests. Active and historic raptor nesting sites had been protected and managed for continued nesting activities (Alternative A), but Alternatives C and D deviate from this. We are supportive of Alternative B, which also provides local influence by referencing "case-by-case basis". | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13899-49 | ? MA 4430: Support a modification of Alternative B and D, with changes to buffers to be the same as those referenced in the USFWS raptor guidelines. We appreciate that both alternatives take into account new science, which recommends locating structures away from high avian-use areas (including travel between areas) as these can cause direct mortality | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4430. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13899-50 | ? MA 4431: Buffers should be the same as those referenced in the USFWS raptor guidelines | A range of alternatives has been analyzed for raptor buffers in Chapter 2.2.6 management action 4431. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13899-51 | ? MA 4434: Raptor surveys should be at least 1-mile radius for all raptor species, except larger for golden eagles and proposed wind development | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13899-52 | ? MA 4620: Alternative D is preferred, to give field staff flexibility in requiring raptor perch deterrent devices on a case-by-case basis. | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. See Appendix A.1.1 for discussion of Project Design Features. |
| 816.03 - Raptors | #13899-55 | ? For Special Designations (SD), where there are RCAs: ? MA 7310 (as an example) - support both Alternative B and D - specifies "Manage important wildlife habitats for no-net-loss of habitat and to retain habitat function by applying surface use restrictions …" [emphasis added] ? MA 7328 (as an example) - support Alternative B which specifies "Develop and implement an HMP focused on … and raptor concentration areas, nesting, and feeding grounds that addresses PFC and managing plant communities through proper grazing management, OHV use, and strategically placed energy development." [emphasis added] | A range of alternatives has been analyzed for important wildlife habitats in the Red Desert Management Area in Chapter 2.2.6 management action 7310. |
| 816.03 - Raptors | #13905-6 | The Proposed RMP would defer nest buffer delineation for birds of prey to some future, undetermined process, on a case-by-case basis (DEIS at 2-72). The Preferred Alternative goes on to specify a one-mile nest buffer preventing most facility siting for occupied and historic raptor nests and feeding grounds (DEIS at 2-73). This is supplemented by an additional one-mile buffer where "restrictions" would apply. (DEIS at 2-74). We find this grossly inadequate. Watson et. al. (The Journal of Wild. Mgmt. 1-10; 2020) found that "current and historical evidence for depressed golden eagle nesting in Washington (State) is consistent with documented effects from habitat conversion, prey declines, lead contamination, and wind power development" (emphasis added). | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428-4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13905-7 | When considering perch inhibitors (DEIS at 2-82) it is important to recognize that these are only partially effective. Such perch deterrents reduce, but do not eliminate, raptor perching (Slater and Smith 2010). Notably, it was golden eagles and ravens, two of the most important sage grouse predators and nest predators, respectively, that most effectively circumvented powerline perch inhibitors in this study. Within the range of the Gunnison sage grouse, Prather (2010) empirically found perch inhibitors to be ineffective at preventing raptor perching on power lines. | A range of alternatives has been analyzed for raptor perches in Chapter 2.2.6 management action 4620. See Appendix A.1.1 for discussion of Project Design Features. |
| 816.03 - Raptors | #13908-24 | 4428 B Protect occupied nests and historic raptor nesting sites and associated feeding areas and manage for continued nesting activities. For consistency within the document and with surrounding field office RMPs, and for clarity, use raptor concentration areas instead of historic raptor nesting sites. Remove feeding areas as they are difficult to define objectively. Protect occupied nests and raptor concentration areas and manage for continued nesting activities. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13908-25 | 4428 B Determine, on a case-by-case basis, the appropriate level of protection depending upon the species involved, natural topographic barriers, and line-of- sight distances, etc. We recommend using seasonal and spatial buffers in Appendix J, Table J-4, the proposed buffers for Alternative D. Determine, on a case-by-case basis, the appropriate level of protection considering raptor-specific seasonal and spatial buffers (Appendix J) and natural topographic barriers, and line-of- sight distances, etc. | A range of alternatives for raptor nesting protections and buffer distances is analyzed in Chapter 2.2.6 management actions 4428. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 816.03 - Raptors | #13908-26 | 4430 B Prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds. This includes project components such as permanent and/or high-profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.). Allow for species-specific buffer protections that are consistent with spatial buffers currently proposed in Appendix J, Table J-4, the currently proposed buffers for Alternative D. Use language from first paragraph in Alternate D but include individual project review when appropriate. Allow, on a case-by-case basis, surface occupancy within the identified buffer of occupied and historic raptor nests (Appendix J), subject to adequate mitigation of impacts following BLM mitigation policies. This includes project components such as permanent and/or high- profile structures (e.g., buildings, storage tanks, power lines, roads, well pads, etc.). | A range of alternatives has been analyzed for raptor nest protections in Chapter 2.2.6 management action 4430. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13908-27 | 4431 B Restrict surface disturbing and disruptive activities seasonally within a two-mile radius of occupied nests and historic raptor nesting sites and associated feeding grounds to protect nesting raptors. We recommend using buffers currerntly proposed in Appendix J, Table J-4. We also recommend prohibiting with an exception process and removing feeding grounds given the difficulties in defining those areas. Prohibit surface disturbing and disruptive activities seasonally within raptor-specific seaonal and spatial buffers (Appendix J) of occupied nests and historic raptor nesting sites to protect nesting raptors. Consider exceptions on a case-by-case basis if impacts will not adversely impact the population being protected. | A range of alternatives has been analyzed for raptor nests seasonal protections in Chapter 2.2.6 management action 4431. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13908-28 | 4431 D Avoid surface disturbing and disruptive activities seasonally within the identified buffer of occupied nests and historic raptor nest sites (see Appendix J). Similar recommendations as those in Alterntive B. Prohibit surface disturbing and disruptive activities seasonally within raptor-specific seaonal and spatial buffers (Appendix J) of occupied nests and historic raptor nesting sites to protect nesting raptors. Consider exceptions on a case-by-case basis if impacts will not adversely impact the population being protected. | A range of alternatives has been analyzed for raptor nests seasonal protections in Chapter 2.2.6 management action 4431. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.03 - Raptors | #13908-29 | 4434 B Conduct raptor surveys (for nesting, roosting, and foraging) within up to a four-mile radius of surface disturbing or disruptive activities based on the extent and nature of the proposed action. 4 miles is unneccessary given the proposed buffer sizes. We recommend matching language in Alternative D. Conduct raptor nest surveys within one mile of proposed surface uses or activities, on a case-by case basis, if suitable raptor nesting habitat is identified. | A range of alternatives has been analyzed for raptor survey requirements in Chapter 2.2.6 management action 4434. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 816.04 - Fish | #13668-2 | #7419 Manage the Sage Creek, Currant Creek, and Red Creek watersheds in support of watershed stability and Colorado River cutthroat trout habitat management objectives. Management for watersheds only is shortsighted. Overbrowsing could affect the woody species along streams and actually decrease habitat quality for trout. Hasn't it been one of the goals for the area to improve stream and trout habitat? Limiting the tools livestock operators have (which an ACEC would do in conjunction with sage grouse fence avoidance) would work against improving stream or trout habitat; that's counter productive and works against the ACEC's current goals. In other words, not only is it double speak, but seems to be working against one of the goals of the ACEC while limiting the tools livestock operators have to achieve proper functioning condition (PFC) and rangeland health. | A range of alternatives has been analyzed for the Greater Red Cr. ACEC in Chapter 2.2.6 management actions 7418-7445, which includes management for Sage Creek, Currant Creek and Red Creek. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 816.04 - Fish | #13908-12 | 4406 D Restrict land exchanges of aquatic, wetland, and riparian habitat only for land of equal or better ecological/functional resource value as determined by the BLM. Include consultation with WGFD. Restrict land exchanges of aquatic, wetland, and riparian habitat only for land of equal or better ecological/functional resource value as determined by the BLM and in consultation with the WGFD. | See Chapter 1.4 Planning Criteria for acknowledgement of consulting with agencies including WGFD |
| 816.04 - Fish | #13923-25 | We request that Alternative B be adopted for MA#4435 with the following NSO addition. To conserve native/cold water fisheries and native aquatic species habitat we request a half mile (.5mi) NSO buffer zone for industrial development surface disturbance to include the Big Sandy River, Little Sandy River, Sweetwater River, Green River, Upper Bitter Creek, Bitter Creek, Trout Creek, Currant Creek, Sage Creek, Red Creek, Little Red Creek, Gooseberry Creek, Henry's Fork. The NSO should only apply to industrial development. Agricultural and waterway enhancement and/or restoration projects should be evaluated on a case-by-case basis pursuant to the exemption/waiver/modification process. The BLM should consult with the WGFD to evaluate these requests. This buffer zone will result in less potential for effects from surface disturbing activities and potential spills associated with fluid mineral development. Additionally, this will minimize sediment loading, erosion, and contamination. This buffer zone should also be applied to waterways that have high potential for native fish restoration. | A range of alternatives has been analyzed for fish bearing streams in Chapter 2.2.6 management action 4435. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for acknowledgement of consulting with agencies including WGFD. |
| 816.04 - Fish | #13943-13 | To conserve native/cold water fisheries and native aquatic species habitat we request a half mile (.5mi) NSO buffer zone for industrial development surface disturbance to include the Big Sandy River, Little Sandy River, Sweetwater River, Green River, Upper Bitter Creek, Bitter Creek, Trout Creek, Currant Creek, Sage Creek, Red Creek, Little Red Creek, Gooseberry Creek, Henry's Fork. The NSO should only apply to industrial development. Agricultural and waterway enhancement and/or restoration projects should be evaluated on a case-by-case basis pursuant to the exemption/waiver/modification process. The BLM should consult with the WGFD to evaluate these requests. This buffer zone will result in less potential for effects from surface disturbing activities and potential spills associated with fluid mineral development. Additionally, this will minimize sediment loading, erosion, and contamination. This buffer zone should also be applied to waterways that have high potential for native fish restoration. | A range of alternatives has been analyzed for fish bearing streams in Chapter 2.2.6 management action 4435. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. See Chapter 1.4 Planning Criteria for acknowledgement of consulting with agencies including WGFD. |

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| 817 - Biological Resources–Special Status Species (4600-4624) | #42-1 | Returning the bison and limiting grazing on public lands to the extent that bison can coexist & reestablish ancestral migratory access is necessary. | Bison reintroduction is outside the scope of this EIS and proposed RMP, as it was not identified as a planning issue during scoping. See Section 1.3 of the DEIS. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #9793-7 | Explain how offsite mitigation will be used and where. Pages 2-209 South Wind River ACEC, 2210 East Sand Dunes ACEC, p 2-211 Big Game Migration Corridor, all mention "Manage a separate offsite mitigation area for biological impacts from energy development." Yet the Preferred Alternative will make these areas unavailable for leasing or energy development. Explain. Where will this offsite mitigation area be located? Is it within the RSFO? Page 4-73 states: "Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation," from both the South Wind River ACEC as well as the Big Game Migration Corridors ACEC under Alternative B. Yet referring to the South Wind River ACES on p4-103 through p4-104 states "Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation." These are different species than identified in the earlier pages. Why the inconsistency, and what is the specific plan for offsite mitigation? The claim that this off-site mitigation could result in benefits to swift fox is a bit concerning, since the swift fox is a species not known to occur in the RSFO. Please explain how offsite mitigation will work, and why this provision is specifically added to these three ACECs. | See Glossary definition of 'offsite mitigation'. Implementation of offsite mitigation occurs at a project level and is outside the scope of this RMP planning document. See also section 4.21 of Chapter 4 of the DEIS for analysis of proposed management actions for all four alternatives. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #9794-3 | Whitebark Pine Whitebark Pine is in Appendix H, but not listed in 3.8.3 special status plant species. | See change to Table 3.2 in Section 3.8.3 |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13210-66 | 4602 Alternative A Known locations of Special Status plant species communities would be protected and closed to: 1) surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat; 2) the location of new mining claims (withdrawal from mineral location and entry under the land laws would be pursued); 3) mineral material sales; 4) all offroad vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and 5) the use of explosives and blasting. (See the discussion Lands and Realty management and Minerals management.) Alternative A is preferred because it provides that Special Status plant communities will remain protected, while still allowing for compatible activity in the area, which is not the case under Alternatives B and D. | Management actions for Special Status Species can be found in actions 4600-4624. Management actions related to the Special Status Plant ACEC can be found in actions 7508-7515. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13210-67 | 4617 Alternative D Manage Special Status Species habitat for the plant condition and composition that maintains a healthy functional habitat. Alterative D is preferred because it represents a continuation of the status quo in the field office regarding the management of Special Status Species habitat, which the task force found no need to diverge from. | Management actions for Special Status Species can be found in actions 4600-4624. Impacts from all four alternatives can be found in Chapter 4. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13287-9 | It is ironic that the Green River RMP (reflected in Alternative A) specifies ESA consultation on listed species only in the Jack Morrow Hills CAP area (DEIS at 2-81), while the Preferred Alternative would consult with USFWS throughout the planning area. This is a nondiscretionary legal requirement under the ESA, so it is not optional. It is beneficial to include this in the plan, as an extra reminder for future land and resource managers not to forget this important procedural step. Conducting field surveys for Special Status wildlife species (as in Alternatives B and D) is a wise and necessary step to avoid unforeseen impacts to listed species. | See Appendix H for the ESA Biological Assessment. See also Management Action 4618 for a comparison of all four alternatives that address consultation for ESA. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13287-24 | For invasive species, Alternative B precludes chemical methods, which might potentially be useful against cheatgrass for small applications, and might also be expanded to include rest from livestock grazing as a viable method to reduce cheatgrass over long time horizons | Management for Invasive Species and Pest Management can be found for all four alternatives in actions 4200 - 4213. Management for Livestock grazing is included in actions 6400-6417. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13542-44 | MA#4602. Alternatives A, B, C, and D. 2-77 Define who is managing the "Special Status" list for the implementation of the RMP in the Rock Springs Field Office administered areas, as several sources have conflicting lists (WNDDD, USFQS, WGFD, etc.). | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |

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| 817 - Biological Resources–Special Status Species (4600-4624) | #13542-45 | MA#4616. Alternative B. 2-80 The stipulation for not reoffering mineral leases once they expire should not apply to mineral leases that would have no impact on the surface or would have impacts that can be avoided, reduced, or mitigated. This alternative should include language to allow for exceptions, waivers, and modifications. | See Appendix B for Exception, Modification, and Waiver Criteria. Management of Special Status Species is included for all alternatives in actions 4600 - 4624. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13751-139 | MA #4600 ALT A B C D Industry Position: Not acceptable. Reasoning: "potential habitats" could be everywhere. The action must be defined to known special status species areas. ALT B Industry Position: Not acceptable. Reasoning: "potential habitats" could be everywhere. The action must be defined to known special status species areas | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13751-140 | MA #4602 ALT B C Industry Position: Not Acceptable Reasoning: No geographic distance is proposed and as written the restriction is arbitrary. ALT D Industry Position: Acceptable Reasoning: Geographic distance is provided that reasonably allows for activities that do not disturb plants. | Impacts from all four alternatives can be found in Section 4.8. See also Section 3.8.3 for a description of special status plants within the field office. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13784-28 | MA#4602, Alt. B: "Prohibit surface disturbing activities or any disruptive activity on known locations of Special Status plant species." Comment: BLM must identify all known locations of Special Status plant species in order for the project proponents to know what impact Alternative B would have on their respective industry. | Impacts from all four alternatives can be found in Section 4.8. See also Section 3.8.3 for a description of special status plants within the field office. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13784-29 | MA#4610, Alt. B: "Prohibit surface disturbing activities in potential habitat areas of Special Status plant species." Comment: MA#4610 goes even further than known locations and will have devastating impacts to industries utilizing the project area for development given the unknown "potential habitats." | Impacts from all four alternatives can be found in Section 4.8. See also Section 3.8.3 for a description of special status plants within the field office. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13784-46 | "Prohibiting use of fire chemicals, salt or mineral supplements, and range improvements within % mile of special status plant species could indirectly further protect soil quality in these areas." (p. 4-24) Comment: The prohibition of range improvements includes fencing. Fencing is often used to protect vegetation, including special status plant species. Yet, Alternative B, will not allow fencing to protect the plants within % mile of the plants. Also, how is soil "quality" protected? | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. Section 4.4 provides analysis of all alternatives for soil resources. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13787-65 | MA #4600 BR-27, BR-28, BR-30 Any management actions on potential habitat of Special Status plant species communities on federal land or on split estate lands (i.e., non-federal land surface ownership with BLM-administered federal minerals ownership) would require searches for the plant species prior to project or activity implementation to determine the locations of Special Status plant species and essential and/or important habitats. Special status plant populations are closed to activities that could adversely affect these species and their habitat. Management requirements in habitat areas may include prohibiting or limiting motorized vehicle use, surface uses, and explosive charges or any other surface disturbing or disruptive activity that may cause adverse effects to the plants. Industry Position: Not acceptable. Reasoning: "potential habitats" could be everywhere. The action must be defined to known special status species areas. Require Special Status plant species surveys on potential habitats on federal land surface before any project or activity is approved. If species are found, species- specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the Endangered Species Act (ESA), require inventories for listed or proposed species potential habitats on federally leased lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Industry Position: Not acceptable. Reasoning: "potential habitats" could be everywhere. The action must be defined to known special status species areas. Require Special Status plant species surveys on potential habitats on federal land surface before any project or activity is approved. If species are found, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on potential habitats on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |

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| | | would be developed and implemented in consultation with the USFWS. If species are found during construction, avoidance measures would be taken if possible. Develop and implement protective measures for listed species in consultation with the USFWS. Industry Position: Not acceptable. Reasoning: "potential habitats" could be everywhere. The action must be defined to known special status species areas. Require Special Status plant species surveys on potential habitats on federal land surface before any surface disturbing project or activity is approved. If species are found, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions, require inventories for listed or proposed species potential habitats on federally leased lands before any surface disturbing project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species- specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Industry Position: Not acceptable. Reasoning: "potential habitats" could be everywhere. The action must be defined to known special status species areas. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. Language is taken from Alternative B and C and D, with modifications. | |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13787-66 | MA #4602 BR-27, BR-28, BR-29 Known locations of Special Status plant species communities would be protected and closed to: 1) surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat; 2) the location of new mining claims (withdrawal from mineral location and entry under the land laws would be pursued); 3) mineral material sales; 4) all off- road vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and 5) the use of explosives and blasting. (See the discussion Lands and Realty management and Minerals management.) Industry Position: Not Acceptable Reason: Should be evaluated on a case-by- case basis or a buffer should be defined. Prohibit surface disturbing activities or any disruptive activity on known locations of Special Status plant species. Manage as: 1) NSO for fluid minerals; 2) withdrawal from mineral location and entry under the land laws would be pursued; 3) closed to mineral material sales; 4) closed to all off-highway vehicle (OHV) vehicular travel, including those vehicles used for geophysical exploration activities, surveying, etc.; 5) the use of explosives and blasting; 6) avoidance area for new ROWs. Industry Position: Not Acceptable Reasoning: No geographic distance is proposed and as written the restriction is arbitrary. Avoid known locations of Special Status plant species for surface disturbing activities. Permit authorizations where applicants could demonstrate that proposed activities would not impact sensitive plant species. Manage as: 1) avoidance area for new ROWs; 2) limit vehicle use to existing roads and trails. Industry Position: Not Acceptable Reasoning: No geographic distance is proposed and as written the restriction is arbitrary. Prohibit surface disturbing activities or any disruptive activity within 100 feet of the boundary of known locations of Special Status plant species. * NSO for fluid minerals. * Close to mineral material sales. * Allow subsurface mining only and prohibit surface facilities. * Designate as a ROW avoidance area. * Close to all OHV vehicular travel, including those vehicles used for geophysical exploration activities, surveying, etc. * Prohibit the use of explosives and blasting. Industry Position: Acceptable Reasoning: Geographic distance is provided that reasonably allows for activities that do not disturb plants. Alternative D is acceptable. | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13834-1 | None of the species collected are considered of high state interest (Wyoming Game & Fish Memorandum, December 6, 1979). However, the Dwarf Shrew, Merriam's Shrew, Cliff Chipmunk , Canyon Mouse, and Sagebrush Vole are listed as "Special Mammals" by the Nature Conservancy (1979). * Three of these species probably only occur in isolated "pockets"' in the Planning Unit, which should be recognized as unique areas and worthy of careful consideration when evaluating the impacts of development. The Canyon Mouse was only found in the Limber Pine habitat in Cedar Canyon. Although Long ( 1965) also reported it from the Lower Green River Drainage, it was not collected there during this study. In addition, the Northern Flying Squirrel was only found on Little Mountain and the Merriam's Shrew only on White Mountain. Also, within the attached report, there are scientific references to the characteristics of each species, their habitat, and the locations of the transects that the biologists trapped these mammals in. Because of this report, I recommend that the BLM, within the Rock Springs Final RMP, identify management strategies that could protect these isolated pockets of mammals. These strategies could range from establishing ACECs to stipulating development management actions that would protect essential habitats. If the BLM does not protect these species, one poorly planned management action could wipe out the entire population for one species. | See Chapter 3.8 for a description of Special Status species for the Rock Springs Field Office. None of the listed species here are species of concern identified in Section 3.8, nor were they identified in the planning criteria for analysis (See Section 1.3). Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |

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| 817 - Biological Resources–Special Status Species (4600-4624) | #13865-26 | K. MA #4602 The buffers associated with rare plant species differ under the alternatives of MA #4602 from buffers around plant "communities", "locations", or boundaries of locations. Consequently, these potential buffer distances could vary greatly. If these areas are included as ROW exclusion areas, there could be impacts on the ability for electric utilities to serve customers if areas much larger than needed to protect sensitive plants are included in extensive buffers (e.g., around plant communities). To protect rare plants while not overreaching on the need for ROW exclusion areas, PacifiCorp recommends that the BLM adopt Alternative C under MA #4602. | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13865-27 | L. MA #4609 Alternatives A, B, and D of MA #4609 fail to follow NEPA as they would allow BLM to designate new ACECs without public input. The protections of rare plants are already addressed in MA #4602. For these reasons, PacifiCorp recommends that the BLM adopt Alternative C of MA #4609. | See language in MA 4609 for Alt A, B and D that references RMP amendments, which require NEPA. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13865-29 | N. MA #4619 Alternative B of MA #4619 should not be adopted because it: (1) does not include consultation with USFWS and/or WGFD; (2) offers no ability to grant exceptions; and (3) requires survey methods to be determined by a RSFO BLM biologist. Federal or state species listings are the jurisdiction of USFWS or WGFD, and these agencies should be consulted. There should be an ability to adapt or implement exceptions depending on specific circumstances, particularly in the case of emergencies or wildfire prevention activities. Surveys can be conducted by qualified biologists without BLM pre-approval; requiring BLM biologists to determine survey methods creates an unnecessary time delay and burden for both BLM and project proponents. For these reasons, PacifiCorp recommends that the BLM adopt Alternative D of MA #4619. | MA 4619 provides a range of alternatives and is consistent with BLM policy and procedures. Analysis from the impacts of all Special Status proposed management actions can be found in Chapter 4. |
| 817 - Biological Resources–Special Status Species (4600-4624) | #13865-58 | o "Place infrastructure in already disturbed locations where the habitat has not been fully restored." As stated previously, power line routes are sited based on many factors, including avoiding sensitive resources and considering costs to utility customers. Consequently, utilities may not always be able to site line routes in areas with existing disturbance. PacifiCorp recommends that the BLM modify this stipulation to include "where feasible, practicable, and cost effective." | Appendix A: Project Design Features and Best Management Practices apply to implementation of projects, please see Section A.1.1 for when these may apply. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #9850-1 | I'm commenting in regard to the lack of timing restrictions related to sagebrush-obligate songbirds, such as sage thrasher, sage sparrow and Brewers sparrow. These species, all protected by the MBTA and all BLM SSS, would be afforded no protection from the direct destruction of nests/young when projects impact sagebrush habitat. The lack of timing restrictions seems arbitrary and capricious as the BLM offers timing restrictions for breeding raptors, sage-grouse, and many mammal species. | See Management Action 4407 for restrictions proposed for migratory bird species. Additional management for sagebrush protections can be found in the Greater Sage Grouse Amendments that is ongoing as a separate RMP planning effort. Management actions for special status species can be found in actions 4600-4624. Management actions for general wildlife species can be found in actions 4400-4436. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13542-63 | Literature Cited. Patterson, R.L. 1952. LC-15 The sage grouse source was from 1952, or 71 years old. In more recent history, there has been a lot of research and information documented on sage grouse by the Wyoming Game and Fish Department that would be a more relevant and recent source of data. | Greater Sage-Grouse management is being analyzed in a separate RMP amendment process, and is outside the scope of this document. See Section 1.3 for the Planning Criteria for this DEIS. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13665-19 | The Draft EIS's opening chapter provides that "[a]ll [sage-grouse] management actions … are outside the scope of this planning effort and are not analyzed," and BLM disclaims that any of its management decisions are based on sage-grouse. RMP Draft EIS at 1-3. Nonetheless, in the Draft RMP, BLM cites sage-grouse core areas (designated by the State of Wyoming) as relevant wildlife resources that support its proposed designation of several ACECs. See, e.g., id. at App. C-9-C-11, C-13-C-14, C-17, C-28. For example, in laying out its rationale for one of the proposed ACECs, the Salt Wells ACEC, BLM cites the sage-grouse priority-habitat management area ("PHMA") (a federal designation that is different from-though overlapping with-the 15 There is also a discrepancy in BLM's characterizations of the total acres included within the Cedar Canyon ACEC. Compare id. at 3-28 (listing 2,550 acres) with id. at 4-72 (listing 2,540 acres). state's "core area") as "more than locally significant"; having "qualities or circumstances that make it fragile … endangered, threatened, or vulnerable"; and a "national priority." Id. at C-13- C-14. But BLM cannot have it both ways-either the sage-grouse habitat is relevant to its ACEC decisions, or it is not. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. ACEC Relevance and importance criteria can be found in Appendix C - Areas of Critical Environmental Concern Evaluation, and management actions for specific ACECs can be found 7400-7570. |
| 818 - Biological Resources–Special Status | #13665-20 | In any event, although BLM is currently considering amendments to its Wyoming Greater Sage- Grouse RMP that guide the conservation of sage-grouse in several Western states,16 it has not yet released its proposed sage-grouse RMP amendments, so there are no proposed maps, restrictions, or analyses for the public to consider during this comment period. They are not made a part of this Rock Springs proposed RMP in any event. It is | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |

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| Species-Greater Sage-Grouse (4700-4800) | | therefore impossible for the public to understand, much less accurately comment on, a sage-grouse-based ACEC. And "[a] decision made without adequate notice and comment is arbitrary or an abuse of discretion." NRDC v. EPA, 279 F.3d 1180, 1186 (9th Cir. 2002) (citing 5 U.S.C. § 706(2)(A)). | ACEC Relevance and importance criteria can be found in Appendix C - Areas of Critical Environmental Concern Evaluation, and management actions for specific ACECs can be found 7400-7570. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13665-21 | BLM's currently designated PHMAs for sage-grouse, outlined in the Wyoming Greater Sage- Grouse RMP,17 overlap with Wyoming's core sage-grouse area designations. They cover much of Wyoming and the Rock Springs area, and they both implement a multiple-use strategy. The PHMA's "management priority is: to open to oil and gas leasing, but with restrictions; to exclude or avoid disturbance to sage-grouse and their habitat; and to minimize impacts to PHMA where they cannot be avoided." Wyoming Greater Sage-Grouse RMP, at 6 (Mar. 2019). BLM's Draft RMP fails to provide any justification for why management under the current PHMA framework does not sufficiently protect sage-grouse in the areas covered by BLM's newly proposed ACECs, or why the areas must be entirely closed to further oil-and-gas leasing, rights-of-way, or new roads solely to protect sage-grouse. BLM's designation of ACECs based on the presence of sage-grouse is arbitrary and contrary to BLM's assertion that its new RMP decisions are not based on sage-grouse conservation. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. ACEC Relevance and importance criteria can be found in Appendix C - Areas of Critical Environmental Concern Evaluation, and management actions for specific ACECs can be found 7400-7570. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-31 | The RMP is flawed at the outset, both substantively and procedurally. The RMP and DEIS completely ignores sage grouse even though the agency is aggressively working to expand sage grouse areas and protections. Many of which will directly impact the RMP area. The RMP explicitly disregards the wild horse management issue. Wild horses impact significant portions of the RMP. BLM's decision to ignore these matters seems inconsistent with NEPA and FLPMA and the BLM planning regulations. This is unacceptable because NEPA requires a comprehensive analysis with all cumulative issues and impacts. By pulling these important items out of the RMP there is no way to evaluate the cumulative impacts, restrictions, closures, withdrawals, and actions properly. BLM needs to finish its work on sage grouse and wild horses and then incorporate those actions into the RMP, not the other way around because the RMP is the umbrella planning document that must consider all other resources, impacts and actions. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. Additionally, the 2023 Record of Decision for the Wild Horse Management in the Checkerboard amended the 1997 RMP and are part of Alternative A. Both Greater Sage-grouse and wild horse resources are disclosed in Chapter 3 as part of the resource area. Wild Horse management actions in this RMP can be found in actions 4900-4910. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-32 | BLM was going one direction on sage grouse and then with this draft RMP/DEIS they completely switched directions. This was a complete surprise to the public and is unacceptable. All news releases from the BLM regarding this RMP indicated it was going to incorporate sage grouse planning into the RMP, but with this recent August 2023 release have now indicated no sage grouse planning will be incorporated into the RMP. This is unacceptable and BLM must incorporate sage grouse planning and restrictions into this RMP. The plan cannot be adequately reviewed without having sage grouse planning included. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-33 | BLM's intent was to incorporate sage grouse planning into the Rock Springs RMP and the notice of intent did not say it was not going to incorporate sage grouse planning into the Rock Springs RMP. At a minimum per this Notice of Intent and Court Order, BLM should at least do a supplemental EIS to incorporate important sage grouse planning decisions into the Rock Springs RMP. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-34 | Page ES-3 of the Draft RMP/DEIS, August 2023 (in a footnote only):"Greater Sage-grouse management, including all actions related to management of Priority Habitat Management Areas and General Habitat Management Areas, are being addressed under separate ongoing Amendment(s) and are not included as planning issues for this document. All management actions, including restrictions for mineral development, that are currently being implemented through prior Amendment (Ex. 2015) are outside the scope of this planning effort and are not analyzed." With this footnote, BLM's intent completely changed on sage grouse planning (or complete lack thereof) in this RMP. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-35 | BLM has made it impractical to evaluate sage grouse and RMP planning because they are not two distinct issues, but rather one must be dependent on the other and the 2014 and 2015 Notices of Intent fully indicated the RMP would incorporate sage grouse planning from other actions. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |

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| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-36 | The distribution and abundance of wildlife in the planning area are primarily functions of habitat conditions." The RMP must include sage grouse habitat planning management decisions and cannot simply punt on this important issue. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-74 | Sage Grouse. The Executive Summary pages ES-2 and ES-3 and Planning Issues Page 1-3, Section 1.3 indicate that Greater Sage Grouse Resource management and Wild Horse management have not been incorporated into the Draft Resource Management Plan (RMP). Also, the Purpose and Need section (Sections 1.2, 1.2.1, and 1.2.2) address "Numerous RODs for Programmatic EISs that have been completed or are ongoing," but omit greater sage grouse and wild horses. Both of these resources represent potential significant risks and impacts to various groups of land users that cannot be evaluated accurately for this RMP when they have not been incorporated. Land users should have the right to evaluate these risks and impacts in aggregate as well as evaluate whether or not the multiple use principles of the Federal Land Policy and Management Act (FLPMA) are being upheld given that these planning efforts have been in development for over 10 years. As a case in point, a BLM News Release on February 3, 2014 indicated that work on the draft RMP would be put on temporary hold until the Wyoming Greater Sage-Grouse Land Use Plan Amendment and EIS could be completed and incorporated into the Rock Springs RMP. By not incorporating these two resources the BLM has changed course to the detriment of informed public participation. This is unacceptable. These omissions are serious enough to warrant withdrawal of the draft RMP until the sage grouse management plan is incorporated. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. Additionally, the 2023 Record of Decision for the Wild Horse Management in the Checkerboard amended the 1997 RMP and are part of Alternative A. Both Greater Sage-grouse and wild horse resources are disclosed in Chapter 3 as part of the resource area. Wild Horse management actions in this RMP can be found in actions 4900-4910. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13751-100 | The document is inherently flawed based on the decisions to: (1) completely ignore pending sage grouse plans, even though BLM had previously announced it was delaying development of the RMP pending development of the sage grouse RMP amendments and (2) entirely ignore the impact of wild horses within the area as well as pending administrative actions related to the wild horse population. These two items are determinative of the treatment of wide expanses of the area covered by this EIS/Draft Management plan. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. Additionally, the 2023 Record of Decision for the Wild Horse Management in the Checkerboard amended the 1997 RMP and are part of Alternative A. Both Greater Sage-grouse and wild horse resources are disclosed in Chapter 3 as part of the resource area. Wild Horse management actions in this RMP can be found in actions 4900-4910. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13787-10 | BLM was going one direction on Greater sage-grouse and then with this draft RMP/DEIS they completely switched directions. This was a complete surprise to the public and is unacceptable. All news releases from the BLM regarding this RMP indicated it was going to incorporate Greater sage-grouse planning into the RMP, but with this recent August 2023 release have now indicated no Greater sage-grouse planning will be incorporated into the RMP. This is unacceptable and BLM must incorporate Greater sage-grouse planning and restrictions into this RMP. In particular, Appendix T, the cumulative impacts analysis section is flawed by not including Greater sage-grouse. The plan cannot be adequately reviewed without having Greater sage-grouse planning included. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 818 - Biological Resources–Special Status Species-Greater Sage-Grouse (4700-4800) | #13787-11 | Section 4.1 like Section 1.3 also informs the reader that the BLM Greater sage-grouse land use plans are not included in the Rock Springs Planning Area Draft RMP. The Draft RMP, especially preferred Alternative B, represents significant impacts to land users and socioeconomically to the community in the planning area. A later release of the Greater sage- grouse land use plans greatly adds to the uncertainty of this Draft RMP and to potentially even greater socioeconomic impacts that cannot be evaluated in the review of this Draft RMP. We suggest withdrawal of Preferred Alternative B until the Draft Greater sage-grouse Plan is released so that the full impact can be evaluated. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #65-3 | You mention wild horses burros yet you again use extremely old data and fail to mention that the population has exploded to unmanageable levels that are causing extreme damage to the land and the roundups/sales are not putting a dent in the population controls. | Wild horse gather and removal operations are an implementation level action that is beyond the scope of this planning level document. All management actions from the 2023 RMP Amendment for Wild Horses have been incorporated into this RMP Revision. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #540-1 | It must also be noted that, to the extent BLM relies on the Consent Decree of 2013 as justification for planning wild horse management and livestock grazing as part and parcel of one another, the 2013 Consent Decree has expired and is no longer in effect. The 2013 Consent Decree should not be considered by BLM when selecting locations to be designated as ACECs. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. The language referencing the 2013 Consent Decree has been updated to reflect the current status of the Wild Horse RMP Amendment. |
| 819 - Biological | #540-2 | BLM should consider the harmful effects of livestock grazing and the benefits to the range of wild, free roaming horses, ensuring that wild horses are given priority over livestock grazing when ACECs overlap with wild horse | Impacts from livestock grazing and wild horse use on vegetation resources are provided in Section 4.6 of the EIS. Impacts to wildlife habitat from livestock grazing and wild horse use are provided in Section 4.7 of the EIS. |

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| Resources–Wild Horses (4900-4910) | | HMAs and other lands on which wild horses roam. Often, where there is ecological degradation to the range, BLM will place fault on wild horses and prioritize their removal, to the benefit of livestock grazing and contrary to the WHBA and the goal of the RMP/EIS. However, a report by Public Employees for Environmental Responsibility (PEER) noted that BLM's own records show that cows outnumber horses on BLM lands by a ratio of 30 to 1.14 "Of the lands that failed to meet [Land Health Standards], BLM reported that in 72% of cases, 'a significant cause' was livestock grazing."15 This equates to approximately 40 million acres of BLM land [nationwide] that is failing due to overgrazing of livestock.16 Limiting livestock grazing also helps protect the natural habitats of elk, deer, moose, pronghorn, and other rangeland wildlife. | |
| 819 - Biological Resources–Wild Horses (4900-4910) | #540-3 | BLM should also consider the benefits to the range by limiting livestock grazing in the ACECs and the planning area, allowing for thriving wild horse populations that are highly beneficial to the rangeland.17 Studies demonstrate that equids support healthy ecosystems on public land if given sufficient habitat and left alone (Lundgren et al., 2021; Lundgren et al., 2017; Downer 2014). Wild horses spread plant seeds over large areas where they roam and do not decompose the vegetation they ingest as thoroughly as ruminant grazers, such as cattle or sheep, allowing the seeds pass through their digestive tract intact into the soil fertilized by wild horse droppings. Wild horses also help to prevent catastrophic fires and help to build more moisture-retaining soils. Soil moisture dampens out incipient fires and makes the air coating the earth moister. | Management Actions 7433, 7438 and 7443 consider eliminating livestock grazing from certain portions of ACECs. Impacts to various resource values associated with these management actions are provided in Chapter 4 of the EIS. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13213-1 | According to the 'RMP Amendments for Wild Horse Management, Record of Decision', from 1979 to 2010 RSGA consented to the presence of up to a total of five hundred (500) wild horses on the checkerboard portion of these HMAs, which include RSGA's private lands. No other private landowners within these HMAs have consented to allow wild horses to use their land. 1. I conducted an on-line search which resulted in no other private landowners within the checkerboard area, other than the RSGA, having filed suit against the Department of Interior and/or Bureau of Land Management for wild horses using their private lands without consent. 2. If no other private landowners consented to allow wild horses to use their land, then why were they free to roam the checkerboard area from 1979 to 2010, 31 years, and 3. Why is the RSGA the ONLY private landowner named in the 2013 Consent Decree? | The legal basis of the 2013 Consent Decree is beyond the scope of this RMP Revision. See Section 1.4 of the EIS for the scope of this planning effort. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13260-1 | In addition, there are pictures taken from highway 191 north on the east and west side of the highway. There is an obvious difference in the range conditions between these two areas which are only separated by the highway ROW. Both areas have cattle grazing allotments. The difference is the west side has an overabundance of wild horses which damage the range. Therefore, a comprehensive evaluation and management plan cannot be established without considering the damage caused by feral horses. | The analysis in Section 4.6 of the EIS has been updated to clarify the impacts wild horses have on vegetation communities. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13273-2 | I am concerned that wild equines are being left out of the management plan. The BLM is required to manage our public lands in a manner that supports our wild equines, maintaining genetically viable herd strength. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment and become part of Alternative A, No Action. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13287-5 | Under the Wild and Free-Roaming Horses and Burros Act, wild horses "are to be considered in the area where presently found, as an integral part of the natural system of the public lands." In 1971, wild horses were found throughout the length and breadth of the Red Desert, both north and south of Interstate 80. However, current Herd Management Areas (HMAs) arbitrarily and capriciously exclude lands suitable for wild horse habitation where wild horses were found in 1971, that are contiguous to occupied HMAs with no rational boundary on the ground that would prevent the free movement of wild horses, thereby arbitrarily denying wild horses to lands and habitats that they inhabited in 1971 and to which they have a legally cognizable right under the WFRHBA to inhabit today. This is an illegal situation which must be rectified through the Rock Springs RMP revision to comply with federal law. | Section 1.4 explains that "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." All management actions comply with all laws, regulations, and policies. This would include The Wild Free-Roaming Horses and Burros Act of 1971. See updated Section 2.2.4. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13287-6 | In particular, western portions of the Continental Peak Herd Area and central portions of the Rock Springs Herd area east of U.S. Highway 191 were historically are currently occupied by free-roaming horses of the Great Divide HMA, and accordingly this HMA must be expanded westward to include a HA lands as far west as Highway 191. For example, Figure 1, taken in September 2023, shows wild horses grazing in a draw tributary to Pacific Creek in the Jack Morrow Hills, and area far west of the Great Divide HMA. Southwestern portions of the Rock Springs HA and western portions of the Salt Wells HA that fall outside the Salt Wells HMA boundary need to be added back to the Salt Wells HMA. These land additions will better afford wild horses more habitat to roam, and more opportunities for the public to view them. The Continental Peak Herd Area should be allowed to be repopulated. Wild horses are also considered a Supplemental Values contributing to wilderness characteristics, and the Sand Dunes and Buffalo Hump Wilderness Study Areas will benefit from according wild horses the full measure of protection required by law within their boundaries. | See updated Section 2.2.4. |
| 819 - Biological Resources– | #13287-7 | The reason that these horses are inhabiting these areas is not because they are ecologically inappropriate (the exact same ecosystems exist in the neighboring HMAs) or that there are sensitive resources that are being measurably impacted (the same sensitive resources occur in HAs and HMAs, and the agency cannot point to measurable differences in impacts to these sensitive resources, primarily because the impacts of cattle and sheep authorized by the agency so swamp the comparatively small impacts of wild horse grazing that differences in | See updated Section 2.2.4. |

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| Wild Horses (4900-4910) | | impact cannot be discerned). And there are no fences, ridgelines, or other geographic barriers that would impede or even slow wild horse dispersal from HMA to HA lands. In effect, the boundaries are entirely arbitrary, a bureaucratic effort to find an excuse to round up and remove horses from lands where they are not authorized, but which under the law the agency must consider them "an integral part of the natural system of the public lands." This is a legally problematic situation that the BLM has created for itself, which now must be corrected by expanding HMA boundaries. | |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13287-8 | The 2020 Rawlins - Rock Springs Wild Horse RMP Amendment ("Wild Horse Amendment") provides a useful baseline of information for the number of wild horses that these HMAs can sustain while still maintaining a thriving natural ecological balance. For the Adobe Town HMA, "these allotments were [already] able to meet these standards at current stocking densities, it is expected that a slightly reduced stocking density will continue to support rangeland health standards in this area, and ensure a TNEB." Wild Horse Amendment DEIS at 1. For the Salt Wells HMA, "The BLM conducted a review of AML (as per H-4700-1) and found that there would be adequate forage, water cover and space to sustain a wild horse herd, and maintain a TNEB within the solid-block portion of the HMA (see Appendix A)." Id. For all alternatives, "By managing wild horses at AML in combination with other permitted uses, the BLM would ensure a TNEB in Alternatives A, B, and D. … Under Alternative C, all wild horses would be permanently removed from the planning area." Wild Horse Amendment DEIS at 94. Under Alternatives A and B, BLM generated AMLs for each HMA that were virtually identical, and more importantly, non-zero. Wild Horse Amendment DEIS Appendix A at unnumbered 2. (This AML analysis failed to consider the number of wild horses that could be accommodated under the "thriving natural ecological balance" threshold if domestic livestock were completely removed). Thus, all alternatives, including the No Action alternative, from the Wild Horse Amendment met the "thriving natural ecological balance" requirement of the WFRHBA. The agency should therefore, at minimum, increase AMLs to 2020 pre-roundup horse population levels: Adobe Town 1,114 Divide Basin 1,282 Little Colorado 493 Salt Wells 894 White Mtn. 469 | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. All comments related to the content of the FEIS for the 2023 RMP Amendment are beyond the scope of this document. See Section 1.4 of the EIS for the scope of this planning effort. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13287-22 | 43 CFR § 4180 requires that corrective action be taken before the next grazing season where Land Health Standards are not met and livestock are a causal factor; it is unclear that Alternatives A, C, and D contain direction consistent with 43 CFR § 4180. In addition, livestock grazing should be zeroed out with wild horse Herd Management Areas, pursuant to 43 CFR § 4710.5. | Section 1.4 explains that "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." All management actions comply with all laws, regulations, and policies. This would include 43 CFR 4180. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13288-1 | I am commenting on the Rock Springs Resource Management Plan (RMP) Revision and Draft EIS, addressing concerns regarding the management of 3.6 million acres of BLM-administered public land in southwestern Wyoming. I oppose the agency's decision to separate wild horse considerations from the RMP revision, specifically the elimination and reduction of Herd Management Areas (HMAs) via a separate RMP amendment process that is currently being litigated. The BLM is mandated to manage public lands for multiple uses in a manner that preserves thriving natural ecological balance (TNEB), necessitating the evaluation of wild horse use in conjunction with other uses. As a result, the RMP revision must consider wild horse use and: Increase Appropriate Management Levels (AMLs) in the five HMAs within the planning area to reflect the "thriving natural ecological balance" required by the Wild Free-Roaming Horses and Burros Act. This adjustment, based on 2020 population levels recognized by the BLM as achieving TNEB, would permit a population of more than 4,700, supporting genetically viable wild horse herds and enhancing the public's ability to view these iconic animals in their natural habitat. Revert Herd Areas to active HMA status to restore the habitat that has been arbitrarily taken away from wild horses since the 1971 Wild Free Roaming Horses and Burros Act was passed. This is in accordance with the Act's mandate to protect wild horses “where PRESENTLY FOUND as an integral part of the natural system of the public lands.” The BLM can and should reduce or eliminate commercial livestock grazing within wild horse HMAs. The BLM is legally mandated to protect wild horses, while livestock grazing is a discretionary use of the public lands. Include provisions for consolidating checkerboard lands through land swaps with private landowners to create contiguous public land habitat for wild horses and other wildlife. This will reduce conflicts, enhance public access to public lands, and alleviate land management challenges. The Draft EIS fails to integrate wild horse use with other public land activities, contradicting the agency's mandate. | See section 2.2 Development of Alternatives, 2.2.4 Alternatives Considered but Eliminated from Detailed Analysis, 2.2.5 Overview of the Alternatives, 2.26 Detailed Alternative Descriptions by Resource Land Resources (LR)-Lands and Realty (6000-6015), 3.9 Wild Horses. A "Closure to Livestock Grazing" alternative was considered but eliminated from detailed analysis (see Section 2.2.4). |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13381-1 | 1. Reasonable Alternatives The EIS unreasonably narrows the range of alternatives and fails to consider reasonable alternatives that would consolidate private and public lands in checkerboard areas to address the private property and permittee complaints calling for the removal of wild horses. The BLM can use “land exchanges with other landowners to improve land management, consolidate ownership, and protect environmentally sensitive areas…the BLM can acquire other lands with important recreation, conservation, scenic, cultural and other resource uses. Land exchanges also allow the BLM to reposition or consolidate lands into more manageable units…” (BLM Lands and Realty – Sales, R&PP and Exchanges; The BLM Lands Exchange Handbook 2-294) The EIS fails to take a hard look at reasonable alternatives and fails to mitigate harm to wild horses with balanced actions to provide for wild horses in the area. | Wild horse management within the checkerboard land pattern, including alternatives considered, was addressed in the 2023 Wild Horse Amendment and has been incorporated into this EIS within Alternative A. |
| 819 - Biological | #13381-2 | 2. Restore Zeroed-Out Herd Areas The BLM previously zeroed out the majority of wild horse habitat in southern Wyoming. The EIS fails to consider repatriating wild horses to these areas and/or expanding HMAs to the | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this |

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| Resources–Wild Horses (4900-4910) | | boundaries existing when the 1971 Wild Horse & Burros Act was passed -- including the Cumberland, Slate Creek, La Barge, Desert, Carter Lease, Granger Lease, Continental Peak, Gold Creek, Triangle, Rock Springs, Checkerboard South, Doty Mountain Cherokee, Sand East Creek (portions), and Bolten Herd Areas. | RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. See updated Section 2.2.4. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13381-3 | . Cumulative Impacts The EIS fails to consider the cumulative impact of eliminating additional wild horse HMAs in the state. Fifty percent (50%) of the original Congressionally designated wild horse habitat in Wyoming has been zeroed out or eliminated for wild horse use. Yet, the BLM continues to permit livestock grazing in these same areas. The EIS proposes to reduce by another 43% the public lands available to wild horses in the state. The cumulative impact of the proposal results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming. The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all public lands where BLM currently manages wild horses and burros. Currently, BLM only manages wild horses and burros on 64% of the original public lands identified by Congress for wild horse and burro habitat. That means since 1971 the BLM has cumulatively reduced wild horse and burro habitat by 37%. BLM has wiped out wild horses and burros from more than 1 of every 3 acres of public lands which Congress designated “principally” for wild horse and burro usage. The EIS fails to consider these cumulative negative impacts on wild horses and fails to take actions to mitigate these negative impacts. | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13402-1 | We strongly urge the BLM to abandon the proposals to eliminate all wild horses in the Salt Wells and Great Divide Basin Herd Management Areas (HMAs) and to sterilize wild horses in the White Mountain HMA. The EIS fails to (1) take a hard look at the cumulative negative impacts of the proposed actions on wild horses in Wyoming, (2) consider and incorporate prevailing public opinion which opposes these actions and (3) consider reasonable alternatives to address claimed concerns regarding the current wild horse populations.” From a petition from The Cloud Foundation | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13449-3 | The BLM fails to provide justification in the Draft RMP Amendment and EIS to remove wild horses from public lands in the planning area that indicates an “overpopulation” or “excess” of wild horses exist, or that removal is necessary to restore a TNEB, and multiple-use relationship. 1. “Prior to removing WH&B from public lands, the authorized officer must make a determination, based on current information, that excess animals are present, and their removal is necessary to restore a TNEB and multiple-use relationship.” (H-4700-1; 7.1.2; Pg. 47) 2. “In making the determination the authorized officer will analyze current information including . . . current population inventory.” (H-4700-1; 7.1.2; Pg. 47) 3. 16 U.S.C. 1333(b)(2) of the WFRHBA (as amended) gives the BLM authority to immediately remove animals upon determination that excess WH&B exist, to achieve AMLs, restore a TNEB, and protect the range from the deterioration associated with the overpopulation. a. The BLM fails to provide current information proving there is an “overpopulation” and “excess” of wild horses on the checkerboard, and b. Fails to provide a current population inventory, and c. Provides no proof that removal of the wild horses from the checkerboard is needed to restore a TNEB, and d. Provides no proof that the range needs to be protected from deterioration associated with overpopulation of wild horses. e. “Justifying a removal based on nothing more than the established AML is not acceptable.” (H-4700-1; 7.1.2; Pg. 47) f. Definition of current: “belonging to the present time; happening or being used or done now”. (Oxford Languages). The BLM publishes public data of horse population estimates, most recent population inventory (Month \| Year), by HMAs within states: Wyoming Wild Horse and Burro Areas Administrated by the Bureau of Land Management, as of March 1, 2022, and as of March 1, 2023 reports. As of March 1, 2022, and March 1, 2023: 1. Adobe Town HMA – a. 2022 Horse Population Estimate - 610 b. Most recent population inventory - March 2019 c. 2023 Horse Population Estimate - 1,693 d. Most recent population inventory – November 2022 2. Great Divide HMA – a. 2022 Horse Population Estimate - 467 b. Most recent population inventory - March 2019 c. 2023 Horse Population Estimate - 875 d. Most recent population inventory – November 2022 3. Salt Wells Creek HMA – a. 2022 Horse Population Estimate - 251 b. Most recent population inventory - March 2019 c. 2023 Horse Population Estimate – 1,003 d. Most recent population inventory – November 2022 4. White Mountain HMA – a. 2022 Horse Population Estimate - 205 b. Most recent population inventory - March 2019 c. 2023 Horse Population Estimate – 549 d. Most recent population inventory – December 2022 Using the data published by the BLM yields the calculated Per Cent of Increase Over Time. Note: the day(s) of the ‘Most Recent Population Inventory’ is not provided. Therefore, I used March 1, 2019 and the last day of the month for November and December 2022. This provides reasoning and transparency. Three of the four HMAs wild horse population estimates are biologically impossible (Adobe Town, Salt Wells Creek, and White Mountain). 1. Adobe Town HMA – • March 1, 2019, to November 30, 2022 = 3 years 9 months = 3.75 years. • (1,693/610)-1 x 100/3.75 years = 47.3% • The percentage of increase over time is biologically impossible. 2. Great Divide HMA – • March 1, 2019, to November 30, 2022 = 3 years 9 months = 3.75 years. • (875/467)-1 x 100/3.75 years = 23.3% • The percentage of increase over time aligns with the BLMs notion that wild horse herds can multiply by 20 to 25% over four years. The problem with this notion is that not all wild horse herds and their habitats are created equal. • Wild horses’ habitats are federally designated across 10 western states where topography, climate, forage, water, cover, and space components differ as well. • “Each HMA is unique in its terrain features, local climate and natural resources, just as each herd is unique in its history, genetic heritage, coloring and size distribution.” (HMAs\|(blm.gov) 3. Salt Wells Creek HMA – • March 1, 2019, to November 30, 2022 = 3 years 9 months = 3.75 years. • (1,003/251)-1 x 100/3.75 years = 80% (79.9%) • The percentage of | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. Wild horse gather and removal operations are an implementation level action that is beyond the scope of this planning level document. All management actions from the 2023 RMP Amendment for Wild Horses have been incorporated into this RMP Revision. |

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| | | increase over time is biologically impossible. 4. White Mountain HMA – • March 1, 2019, to December 31, 2022 = 3 years 10 months = 3.83 years. • (549 / 205)-1 x 100/3.83 years = 43.8% • The percentage of increase over time is biologically impossible. | |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13471-1 | The EIS fails to (1) take a hard look at the cumulative negative impacts of the proposed actions on wild horses in Wyoming, (2) consider and incorporate prevailing public opinion which opposes these actions and (3) consider reasonable alternatives to address claimed concerns regarding the current wild horse populations. | Impacts to wild horses from the management actions proposed in this EIS are provided in Section 4.9 of this EIS. Information on public involvement is provided in the RMP development process is provided in Chapter 5 of the EIS. The range of alternatives analyzed in this EIS represents a reasonable range of alternatives (see Section 1.4 of the EIS). |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13490-1 | I am writing to express my opposition to the BLM's decision to separate wild horse considerations from the RMP revision. The BLM is mandated to manage public lands for multiple uses in a manner that preserves a thriving natural ecological balance (TNEB), and that necessitates the evaluation of wild horse use in conjunction with other uses. As a result, the RMP revision must consider wild horse use | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13490-2 | *Increase Appropriate Management Levels (AMLs) in the five HMAs within the planning area to reflect the "thriving natural ecological balance" required by the Wild Free-Roaming Horses and Burros Act. This adjustment, based on 2020 population levels recognized by the BLM as achieving TNEB, would permit a population of more than 4,700, supporting genetically viable wild horse herds and enhancing the public's ability to view these iconic animals in their natural habitat. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. Appendix R provides an evaluation of the AML for the Little Colorado HMA. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13490-3 | *Revert Herd Areas to active HMA status to restore the habitat that has been arbitrarily taken away from wild horses since the 1971 Wild Free Roaming Horses and Burros Act was passed. This is in accordance with the Act's mandate to protect wild horses “where presently found as an integral part of the natural system of the public lands.” | See updated Section 2.2.4. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13490-4 | *Reduce or eliminate commercial livestock grazing within wild horse HMAs. The BLM is legally mandated to protect wild horses, while livestock grazing is a discretionary use of the public lands. It is widely known that the Taylor Grazing Act (43 U.S.C. §§ 315-315r) grants the BLM the discretion to issue permits for livestock grazing on public lands, but it also clear: “the issuance of a permit . . . shall not create any right, title, interest, or estate in or to the lands.” More important, the federal Wild and Free-Roaming Horses and Burros Act (43 C.F.R. § 4710.5) compels the BLM to “close appropriate areas of the public lands to grazing” in order “to provide habitat for wild horses” or “to protect wild horses.” | A "Closure to Livestock Grazing" alternative was considered but eliminated from detailed analysis (see Section 2.2.4). |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13493-1 | Concerns The EIS fails to consider the actual cumulative impact of this action in the State. Fifty percent (50%) of the original Congressionally designated wild horse habitat in Wyoming has been zeroed out for wild horse use. However, it seems that the BLM continues to permit livestock grazing in these same areas. The EIS proposes to reduce by another 43% the public lands available to wild horses in the state. The cumulative impact of the proposal results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming. The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all public lands where BLM currently manages wild horses and burros. Currently, BLM only manages wild horses and burros on 64% of the original public lands identified by Congress for wild horse and burro habitat. Therefore, since 1971, the BLM has cumulatively reduced wild horse and burro habitat by 37%. BLM has wiped out wild horses and burros from more than 1 of every 3 acres of public lands which Congress designated “principally” for wild horse and burro usage. The EIS fails to consider these cumulative negative impacts on wild horses and fails to take actions to mitigate aforementioned negative impacts. | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13493-3 | FLPMA requirements state that “balance wild horse and burro use with other resources” should be done, which equates to at least a 50-50 allocation of available forage between horses and livestock on WHTs. The EIS fails to address this. The EIS fails to address that FLPMA highlights the importance of the non-market value within its definition of the term “multiple-use.” FLPMA requires that: “(c) . . . consideration being given to the relative values of the resources, and not necessarily to the combination of uses that will give the greatest economic return, or the greatest unit output.” The intrinsic value of wild horses and burros falls under the non-market definition specified by both laws (Sec. 302 of FLPMA). | Section 1.4 explains that "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." All management actions comply with all laws, regulations, and policies. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13493-4 | The BLM previously zeroed out the majority of wild horse habitat in southern Wyoming. Despite this, the EIS fails to consider repatriating wild horses to these areas and/or expanding HMAs to the boundaries existing when the 1971 Wild Horse & Burros Act was passed. This habitat includes, the Cumberland, Slate Creek, La Barge, Desert, Carter Lease, Granger Lease, Continental Peak, Gold Creek, Triangle, Rock Springs, Checkerboard South, Doty Mountain Cherokee, Sand East Creek (portions), and Bolten Herd Areas. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. See also updated Section 2.2.4 of the EIS. |
| 819 - Biological Resources– | #13494-1 | We oppose the agency's decision to separate wild horse considerations from the RMP revision, specifically the elimination and reduction of Herd Management Areas (HMAs) via a separate RMP amendment process that is currently being litigated. The BLM is mandated to manage public lands for multiple uses in a manner that | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |

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| Wild Horses (4900-4910) | | preserves thriving natural ecological balance (TNEB), necessitating the evaluation of wild horse use in conjunction with other uses. | |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13494-2 | Increase Appropriate Management Levels (AMLs) in the five HMAs within the planning area to reflect the "thriving natural ecological balance" required by the Wild Free-Roaming Horses and Burros Act. This adjustment, based on 2020 population levels recognized by the BLM as achieving TNEB, would permit a population of more than 4,700, supporting genetically viable wild horse herds and enhancing the public's ability to view these iconic animals in their natural habitat. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. Appendix R provides an evaluation of the AML for the Little Colorado HMA. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13494-3 | The EIS fails to consider the cumulative impact of eliminating additional wild horse HMAs in the state. Fifty percent (50%) of the original Congressionally designated wild horse habitat in Wyoming has been zeroed out or eliminated for wild horse use. Yet, the BLM continues to permit livestock grazing in these same areas. The EIS proposes to reduce by another 43% the public lands available to wild horses in the state. The cumulative impact of the proposal results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming. The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all public lands where BLM currently manages wild horses and burros. Currently, BLM only manages wild horses and burros on 64% of the original public lands identified by Congress for wild horse and burro habitat. That means since 1971 the BLM has cumulatively reduced wild horse and burro habitat by 37%. BLM has wiped out wild horses and burros from more than 1 of every 3 acres of public lands which Congress designated "principally" for wild horse and burro usage. The EIS fails to consider these cumulative negative impacts on wild horses and fails to take actions to mitigate these negative impacts. | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13507-1 | According to language in the Draft RMP Amendment and EIS for Wild Horse Management (Pg. 9) the BLM has met the requirements of the Consent Decree. Since the BLM has met the requirements of the Consent Decree and the Consent Decree is deemed terminated (valid for 10 years) it is no longer a valid driver for the planning area. • The Consent Decree requires that BLM consider **these actions but does not require that the BLM implement any specific action. The BLM has met the requirements of the Consent Decree by considering each of these actions as elements of various alternatives in this EIS, though no single alternative considers all of them together. (Draft RMP Amendment & EIS; Pg. 9) o ** these actions reference changing the Salt Wells Creek and Great Divide Basin HMAs to Herd Areas, which the BLM would manage for zero wild horses. o ** Change the Adobe Town HMA AML to 225-450 wild horses or lower, and gathered wild horses will not be returned to public lands. o **Manage the White Mountain HMA as a non-reproducing herd by utilizing fertility control and sterilization methods to maintain a population of 205 wild horses and to initiate gathers if the population exceeds 205 wild horses. The BLM is not portraying wild horse management plans in the Draft RMP Amendment and EIS, they are portraying a draft plan to unlawfully eradicate the wild horses from their federal designated homes whether HMAs are on or off the checkerboard area. The BLM admits that removing the wild horses from the solid-block portions of their federally designated homes is purely for administrative convenience because it would be “difficult for BLM to prevent this herd from continually returning to private lands in the checkerboard”. (Draft RMP Amendment Pg. 18). • This is unlawful and unacceptable. The 1971 WFRHBA (Pub. L. 92-195; Sec. 1334) does NOT give the BLM authority to remove wild horses from federal public lands to prevent wild horses from straying onto private lands. The BLM admits in conducting reviews of three HMAs (Adobe Town, Great Divide Basin, Salt Wells Creek), the findings resulted that adequate forage, water, cover, and space exists to sustain a wild horse herd and maintain a TNEB. • The BLM needs to exercise their authority in the planning area by enforcing federal regulation 43 CFR 4710.5(a) – “If necessary to provide habitat for wild horses or burros, to implement herd management actions, or to protect wild horses or burros, to implement herd management actions, or to protect wild horses or burros from disease, harassment or injury, the authorized officer may close appropriate areas of the public lands to grazing use by all or a particular kind of livestock.” • 43 CFR 4710.5(a) authorizes the BLM to provide habitat for wild horses and protect them by closing areas of public lands to grazing by private livestock. o In the Adobe Town HMA both cattle and sheep utilize the area in summer and winter months. (Draft RMP Amendment; Pg. 42). o In the Great Divide Basin, Salt Wells Creek, and White Mountain HMAs domestic cattle and sheep utilize area lightly in summer and moderately in winter. (Draft RMP Amendment; Pg’s. 42 and 43). o The BLM should take this opportunity to exercise their authority and execute 43 CFR 4710.5(c) to either temporarily or permanently close the public lands of the planning area to private livestock grazing. o The BLMs “multiple-use” mandate does not authorize private livestock grazing in HAs and/or HMAs. o Under Sec. 103(c) [43 U.S.C. 1702] of the 1976 FLPMA (Federal Land Policy Act); Pub. L. 94–579; “The term “multiple use” means the management of the public lands and their various resource values . . . with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.” o Pub. L. 94-579 refers to the management of “various resource values” and requires that consideration be given to the “relative values of the resources”. o Under 43 CFR 4700.0-6(b), “WH&B shall be considered comparably with other resource values in the formulation of LUPs. WH&B are a resource value as opposed to a land use (e.g., livestock grazing or timber harvest).” o Alternatives B, C, and D in the Draft RMP Amendment and EIS are unlawful, and the BLM needs to abandon them as they violate: ? 43 CFR 4710.5(a), ? Pub. L. 94-579 - Sec. 103(c) [43 U.S.C. 1702] ? Pub. L. 92-195 - Sec. 1334, and ? 43 CFR 4700.0-6(b). Please implement Alternative A and | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |

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| | | revisit the conflicts with the RSGA by proposing land exchanges and/or exercising your authority under 43 CFR 4710.5(c). Under Sec. 2; Pub. L. 100-409 Congress declares that land exchanges are IMPORTANT TOOLS FOR EFFICIENT MANAGEMENT AND TO SECURE WILDLIFE HABITATS. | |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13515-8 | The draft Plan indicates that: 'Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern and are subject to the 2013 Consent Decree and Joint Stipulation for Dismissal in Rock Springs Grazing Association v. Salazar, No. 11-cv-002630F are being addressed under a separate ongoing RMP Amendment and Environmental Impact Statement.' The Record of Decision and Approved RMP Amendment for Wild Horse Management for the BLM Rock Springs and Rawlins Field Offices was signed on May 8, 2023. RMEF supports the change to revert status and manage for 0 horses in the Rock Springs Field Office portion of the Adobe Town, the Great Divide Basin, and the Salt Wells Creek Horse Management Areas (HMA). RMEF requests incorporation of these recent amendments in the final EIS. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. The language referencing the 2013 Consent Decree has been updated to reflect the current status of the Wild Horse RMP Amendment. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13515-9 | The Little Colorado HMA was not included in the May 2023 Plan Amendment for Wild Horse Management and the current draft Plan lacks components related to wild horse forage for that HMA. The draft Plan indicates that: 'Forage for wild horses is not included in the forage utilization estimates discussed below. The BLM allocates forage for wildlife and wild horses separately.' Yet in the May 2023 Plan Amendment for Wild Horse Management, Animal Unit Months (AUM) are included in management actions/goals for all but the Little Colorado HMA (not included in that amendment). There appears to be no other area where AUMs are addressed or any discussion on where information on wild horse forage for the Little Colorado HMA is available. Please direct us to the document where this assessment is made, and forage allocation decided. If no such assessment exists, RMEF recommends inclusion and assignment of AUMs for the Little Colorado HMA in the final EIS. | See updated Section 4.9 |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13515-10 | In addition, the RMP does not lay out a plan to reduce the wild horse population to within the proposed Appropriate Management Level (AML). The last estimate was in 2015 when the population was estimated at 259 animals. Nine years have passed since that estimate and RMEF would like to see further Plan details regarding wild horse removals on a population that is now much larger than the last estimate. RMEF recommends population growth suppression and gather management actions/goals be included, in the final EIS, similar to those included in the May 2023 Plan Amendment for Wild Horse Management. | Wild horse gather and removal operations are an implementation level action that is beyond the scope of this planning level document. All management actions from the 2023 RMP Amendment for Wild Horses have been incorporated into this RMP Revision. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13681-1 | I oppose the agency's decision to separate wild horse considerations from the RMP revision, specifically the elimination and reduction of Herd Management Areas (HMAs) via a separate RMP amendment process that is currently being litigated. The BLM is mandated to manage public lands for multiple uses in a manner that preserves thriving natural ecological balance (TNEB), necessitating the evaluation of wild horse use in conjunction with other uses. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13681-2 | Increase Appropriate Management Levels (AMLs) in the five HMAs within the planning area to reflect the "thriving natural ecological balance" required by the Wild Free-Roaming Horses and Burros Act. This adjustment, based on 2020 population levels recognized by the BLM as achieving TNEB, would permit a population of more than 4,700, supporting genetically viable wild horse herds and enhancing the public's ability to view these iconic animals in their natural habitat. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13681-3 | Include provisions for consolidating checkerboard lands through land swaps with private landowners to create contiguous public land habitat for wild horses and other wildlife. This will reduce conflicts, enhance public access to public lands, and alleviate land management challenges. This is something the BLM should have been doing years ago and private land and livestock owners continue to hold the belief that public land near their private land is "their own" to use as they wish and they continue to make demands to remove predators and any wildlife they deem as a menace. | Wild horse management within the checkerboard land pattern, including alternatives considered, was addressed in the 2023 Wild Horse Amendment and has been incorporated into this EIS within Alternative A. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13681-4 | Reasonable Alternatives The EIS unreasonably narrows the range of alternatives and fails to consider reasonable alternatives that would consolidate private and public lands in checkerboard areas to address the private property and permittee complaints calling for the removal of wild horses. The BLM can use "land exchanges with other landowners to improve land management, consolidate ownership, and protect environmentally sensitive areas. Additionally, the BLM can acquire other lands with important recreation, conservation, scenic, cultural and other resource uses. Land exchanges also allow the BLM to reposition or consolidate lands into more manageable units…" (BLM Lands and Realty - Sales, R&PP and Exchanges; The BLM Lands Exchange Handbook 2-294) The EIS fails to take a hard look at reasonable alternatives and fails to mitigate harm to wild horses with balanced actions to provide for wild horses in the area. | Wild horse management within the checkerboard land pattern, including alternatives considered, was addressed in the 2023 Wild Horse Amendment and has been incorporated into this EIS within Alternative A. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13681-5 | The EIS fails to consider the cumulative impact of eliminating additional wild horse HMAs in the state. Fifty percent (50%) of the original Congressionally designated wild horse habitat in Wyoming has been zeroed out or eliminated for wild horse use. Yet, the BLM continues to permit livestock grazing in these same areas. The EIS proposes to reduce by another 43% the public lands available to wild horses in the state. The cumulative impact of the proposal results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming. The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all public lands where BLM currently manages wild horses and burros. Currently, | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |

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| | | BLM only manages wild horses and burros on 64% of the original public lands identified by Congress for wild horse and burro habitat. That means since 1971 the BLM has cumulatively reduced wild horse and burro habitat by 37%. BLM has wiped out wild horses and burros from more than 1 of every 3 acres of public lands which Congress designated "principally" for wild horse and burro usage. The EIS fails to consider these cumulative negative impacts on wild horses and fails to take actions to mitigate these negative impacts. | |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13751-31 | The RMP is flawed at the outset, both substantively and procedurally. The RMP and DEIS completely ignores sage grouse even though the agency is aggressively working to expand sage grouse areas and protections. Many of which will directly impact the RMP area. The RMP explicitly disregards the wild horse management issue. Wild horses impact significant portions of the RMP. BLM's decision to ignore these matters seems inconsistent with NEPA and FLPMA and the BLM planning regulations. This is unacceptable because NEPA requires a comprehensive analysis with all cumulative issues and impacts. By pulling these important items out of the RMP there is no way to evaluate the cumulative impacts, restrictions, closures, withdrawals, and actions properly. BLM needs to finish its work on sage grouse and wild horses and then incorporate those actions into the RMP, not the other way around because the RMP is the umbrella planning document that must consider all other resources, impacts and actions. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. Greater sage grouse amendments from 2015 and 2019 also have been incorporated into this EIS as Alternative A. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13751-74 | Sage Grouse. The Executive Summary pages ES-2 and ES-3 and Planning Issues Page 1-3, Section 1.3 indicate that Greater Sage Grouse Resource management and Wild Horse management have not been incorporated into the Draft Resource Management Plan (RMP). Also, the Purpose and Need section (Sections 1.2, 1.2.1, and 1.2.2) address "Numerous RODs for Programmatic EISs that have been completed or are ongoing," but omit greater sage grouse and wild horses. Both of these resources represent potential significant risks and impacts to various groups of land users that cannot be evaluated accurately for this RMP when they have not been incorporated. Land users should have the right to evaluate these risks and impacts in aggregate as well as evaluate whether or not the multiple use principles of the Federal Land Policy and Management Act (FLPMA) are being upheld given that these planning efforts have been in development for over 10 years. As a case in point, a BLM News Release on February 3, 2014 indicated that work on the draft RMP would be put on temporary hold until the Wyoming Greater Sage-Grouse Land Use Plan Amendment and EIS could be completed and incorporated into the Rock Springs RMP. By not incorporating these two resources the BLM has changed course to the detriment of informed public participation. This is unacceptable. These omissions are serious enough to warrant withdrawal of the draft RMP until the sage grouse management plan is incorporated. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13751-100 | The document is inherently flawed based on the decisions to: (1) completely ignore pending sage grouse plans, even though BLM had previously announced it was delaying development of the RMP pending development of the sage grouse RMP amendments and (2) entirely ignore the impact of wild horses within the area as well as pending administrative actions related to the wild horse population. These two items are determinative of the treatment of wide expanses of the area covered by this EIS/Draft Management plan. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13769-4 | 3. We urge the BLM to consider the synergistic effects of increasing feral horse populations and decreasing forage production in the area due to climate change. We have observed considerable impacts of wild horse forage consumption. The impacts are significant because unlike migrating wildlife or cattle, feral horses graze the same areas year around. Also, horse digestive physiology forces horses to intake more forage and use it more inefficiently than native ungulates. Horses are clearly not effectively managed and their populations increase each year. Horses also concentrate in certain areas like watering holes and the few riparian areas. We have observed a decrease in both the quantity and diversity of forage in these habitats. For example, the increase in non-palatable species like Prickly Pear Cactus and Rubber Rabbit Brush in areas of heavy grazing is concerning. While the former can be partially attributed to drought and a changing climate, we are concerned that uncontrolled feral horse populations will result in irreversible change in species richness and net primary productivity. We report numerous 'stud pile' areas that are devoid of any vegetation because of repeated occupancy and trampling by numerous stud horses. A decrease in plant cover results in increased soil erosion and a decrease in forage production. While not documented scientifically, we observe in these areas that the trampling is so severe that it appears as if sub-soil salts are leached to the surface and form alkaline deposits that further reduce plant production and lead to the spread of noxious weeks (e.g. Halogeten (Halogeton glomeratus)). | See updates to Section 4.6. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13807-1 | The EIS unreasonably narrows the range of alternatives and fails to consider reasonable alternatives that would consolidate private and public lands in checkerboard areas to address the private property and permittee complaints regarding wild horses. The BLM can use "land exchanges with other landowners to improve land management, consolidate ownership, and protect environmentally sensitive areas…the BLM can acquire other lands with important recreation, conservation, scenic, cultural and other resource uses. Land exchanges also allow the BLM to reposition or consolidate lands into more manageable units…" (BLM Lands and Realty - Sales, R&PP and Exchanges; The BLM Lands Exchange Handbook 2-294) The EIS fails to take a hard look at reasonable alternatives and fails to mitigate harm to wild horses with balanced actions to provide for wild horses in the area. | Wild horse management within the checkerboard land pattern, including alternatives considered, was addressed in the 2023 Wild Horse Amendment and has been incorporated into this EIS within Alternative A. |

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| 819 - Biological Resources–Wild Horses (4900-4910) | #13807-2 | The BLM previously zeroed out the majority of wild horse habitat in southern Wyoming. The current EIS fails to consider repatriating wild horses to these (former/zeroed out) areas and/or expanding HMAs to the boundaries existing when the 1971 Wild Horse & Burros Act was passed - including the Cumberland, Slate Creek, La Barge, Desert, Carter Lease, Granger Lease, Continental Peak, Gold Creek, Triangle, Rock Springs, Checkerboard South, Doty Mountain Cherokee, Sand East Creek (portions), and Bolten Herd Areas. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. See updates to Section 2.2.4. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13807-3 | The EIS fails to consider any of the multitude of alternatives that would *equitably* eliminate the conflict between livestock and wild horse grazing. For example, the EIS fails to consider reducing wild horses on certain public lands (e.g. in the Divide Basin, Salt Wells or Adobe Town HMAs) and simultaneously increasing wild horse AML (AUMs) on previously zeroed-out Herd Areas. The BLM could also conduct an equitable exchange of AUMs on certain checkboard lands - which would not increase livestock AUMs - but rather eliminate the livestock vs wild horse competition for grazing on specific public lands. Such an AUM exchange must include fair and equitable resource allocation for wild horses and should increase horse AUMs to be in conformance with the Act that requires wild horses be the principal user of the range. | Wild horse management within the checkerboard land pattern, including alternatives considered, was addressed in the 2023 Wild Horse Amendment and has been incorporated into this EIS within Alternative A. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13807-4 | The EIS fails to consider BLM's own regulation 43 C.F.R. 4710.5(a). Based on BLM's EIS assessment, it is necessary to remove livestock to provide habitat for wild horses. Given that RSGA grazing on public lands is the basis for the EIS proposed action, the EIS must consider and implement the elimination of RSGA livestock grazing on public lands to accommodate wild horses. The EIS fails to consider utilizing the agency's Adaptive Management mandate and its discretion under 43 C.F.R. 4710.3-2 and 43 C.F.R. 4710.5(a), which allows for the reduction or elimination of grazing for privately-held animals to improve conditions and forage availability for wild horses or burros. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. A "Closure to Livestock Grazing" alternative was considered but eliminated from detailed analysis (see Section 2.2.4). |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13807-5 | The EIS fails to consider the cumulative impact of the Proposed Action in relation to BLM management of wild horses nationwide and BLM Wyoming management of wild horses. To date, BLM has zeroed out 53% of the original Congressionally-designated wild horse habitat in the state of Wyoming. Yet, the BLM continues to permit livestock grazing in these same areas. This has a tremendous cumulative impact on wild horses both in Wyoming and nationwide. The EIS fails to consider the cumulative impact of the Proposed Action in relation to BLM Wyoming's elimination of wild horses from public lands in the state. The Preferred Alternative proposes to reduce the public lands available to wild horses in the state by another 43%. The cumulative impact of the Preferred Alternative results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming (see below).The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all nationwide public lands where BLM currently manages wild horses and burros. | The management actions referenced in this comment are related to a previously approved RMP Amendment for wild horse management that was approved in May 2023. The EIS associated with that RMP Amendment analyzed cumulative impacts to wild horses associated with those management actions. Impacts to wild horses from management actions associated with this RMP Revision are provided in Section 4.9 of this EIS. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13813-1 | Work with land owners by utilizing labd exchanges to benefit wild horses. - restore zeroed-ou areas - you are to follow the 1971 ACT to return wild horses to this area or expanding HMAs. - stop permitting livestock & extractive industries to use the land that you stole from the wild horses. | Wild horse management within the checkerboard land pattern, including alternatives considered, was addressed in the 2023 Wild Horse Amendment and has been incorporated into this EIS within Alternative A. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13923-3 | The Jack Morrow Hills area has high populations of feral horses. These feral horses need to be managed with population objective control. They are extremely territorial and part of that behavior includes competing for food among ungulates and grazers. Sportsmen recommend that the BLM reduce the number of feral horses to the standard population objectives. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #13926-1 | should not consider livestock grazing and wild horses as parts of a unified whole, but rather as two separate elements, as doing so creates the risk of benefitting livestock grazing at the expense of the federally protected populations of wild horses. This concern is validated by BLM stating in the RPM/EIS that one of the primary issues is "[w]ild horse management Livestock grazing/rangeland management," noting that wild horse management is subject to a 2013 Consent Decree.12 BLM should endeavor to uphold its duties and obligations to protect wild horses under the WHBA, as opposed to the interests in livestock grazing. It must also be noted that, to the extent BLM relies on the Consent Decree of 2013, the 2013 Consent Decree has expired and is no longer in effect. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. The language referencing the 2013 Consent Decree has been updated to reflect the current status of the Wild Horse RMP Amendment. |
| 819 - Biological Resources–Wild Horses (4900-4910) | #14020-2 | The Wild and Free-Roaming Horses and Burros Act of 1971 (WHA) unambiguously states that wild horses "are to be considered in the area where presently found, as integral part of the natural system of public lands." (emphasis added) 16 U.S.C. 1331. Despite this clear directive, current Herd Management Areas (HMAs) exclude suitable land where wild horses were found in 1971 and should be corrected by the current revision to comply with the WHA. Unfenced and adjacent Herd Areas (HAs) are still used by wild horses, as they were in 1971, and reincorporating these HAs into the current HMAs would allow for additional habitat and a reduced need for costly, ineffective, and burdensome removal operations currently planned by the agency. Furthermore, incorporating these HAs would increase the agency's compliance with the aforementioned directives of the WHA. | See updated Section 2.2.4 |
| 819 - Biological | #14020-3 | Appropriate Management Levels (AMLs) should be adjusted to reflect a current wild horse population based on a "thriving natural ecological balance," as ordered by the WHA. AML for the five HMAs within the RSFO were | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this |

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| Resources–Wild Horses (4900-4910) | | established in over 25 years ago and therefore cannot represent current information. Vol. 1 Ch. 3 at 3.13-3.14. Information provided by the agency in the Rock Springs Horse RMP Amendment demonstrates that the subject HMAs can sustain the current number of wild horses, if not more, while maintaining a thriving natural ecological balance. As a result, the agency must inform itself of the number of wild horses that the land can support to comply with the definition of AML. In addition, if any land or resources are added to the current HMAs, AML must be raised to consider these changes. See BLM Wild Horses and Burros Management Handbook (H-4700-1) at page 30 stating "Monitoring data is needed to support AML establishment and decisions to remove excess WH&B. Various rulings from Interior Board of Land Appeals (IBLA) underscore the need to base WH&B management decisions on the results of monitoring" and Id. at page 47 stating that "[j]ustyifing removal based on nothing more than the established AML is not acceptable." In addition, the agency should consider and analyze ecosystem services provided by wild horses in order to comply with these directives. | RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. Appendix R provides an evaluation of the AML for the Little Colorado HMA. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #11-1 | I encourage you to involve tribal members closely in all stages of research, protection, policy development, and management | See Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #4026-8 | Chapter 3.11 Cultural Resources. I feel this document needs to include additional language on both Paleoindian (11,200-8,500 years BP) and Archaic (8,500-2,500 years BP) peoples within the cultural resources section of this document, especially as to their use of sand dune areas. Paleoindian bison hunters were known to utilize steep-sided sand dunes to trap bison (Frison, 1998; Mayer, 2003). With a subsequent drying climate and decrease in megafauna populations, native inhabitants during Archaic times diversified their food resources and utilized sand dune areas to collect Indian rice grass (Achnatherum hymenoides) and goosefoot (Chenopodium spp.) seeds for food (Schroedl, A.R., 1985). | See the Executive Summary and Chapter 3 for explanation of the planning process and determination of the affected environment. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #4026-17 | Chapter 4.12.1 Cultural Resources, Assumptions. I recommend an additional assumption be added to this section concerning the cultural resources in the proposed West Sand Dunes Archeological District MA. The wording could be: "The Killpecker Sand Dunes complex contains important Paleoindian, Archaic, and Late Prehistoric peoples' cultural resources." | See Executive Summary and Chapter 4.2.2 Availability of Data and Incomplete Information, and 4.2.3 Analysis Assumptions for discussion of assumptions used. A range of alternatives was analyzed for the West Sand Dunes Archaeological District in Chapter 2.2.6 management actions 5122-5124. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #4026-18 | Chapters 4.12.2 and 4.12.3, Alternatives A and B. These two alternatives include a West Sand Dunes Archeological District MA. I feel both alternatives need to briefly describe why this special management area would be established. I feel a generic explanation of the area's cultural significance will help the public understand the need for special management considerations without compromising the integrity or confidentiality of known cultural sites. | See Chapter 3 for a description of the existing condition in the field office, including cultural resources. A range of alternatives was analyzed for the West Sand Dunes Archaeological District in Chapter 2.2.6 management actions 5122-5124. Goal SD-04 describes importance of the site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #9774-8 | However, the RMP/DEIS currently lacks any mention of consultation with relevant THPOs, raising concerns about the thoroughness of the agency's compliance with regulatory requirements. | See Chapter 5.1.3 Native American Interests regarding consultation with Native American Tribes. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #9853-8 | ains, trace, or imprint of a plant or animal that has been preserved in the Earth's crust since some past geologic or prehistoric time (AGI Glossary of Geology)" (Page GL-12). However, while it is somewhat contradictory for the definition of "Historic Properties" that reads "Any prehistoric or historic district, site, building, structure, or object…" (Page GL-14), if the word 'prehistoric' is used in the RMP, it should be explicit if it is used in the archaeological context, paleontological context, or both, in order to increase clarity. For example, all | See Glossary for definitions used in this document. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #10324-9 | Native Americans, and there is some mention of preserving wildlife and other elements of the land for Native Americans. I think it may be powerful and important to place that in more of the RMP sections, such as more of the wildlife sections and some of the other resource sections. The Environmental Justice Impact section does a really great job at flagging groups of people that may be at higher risk from being negatively impacted, and I think that it could be mentioned a little more in all the alternatives that any actions will be looked at from an Environmental Justice lens as well. I am very pleased at the thought put into the list of individual groups and that there is an emphasis on the fact that no matter the alternative there will be consideration to these groups. | See Chapter 5.1.3 regarding consultation with Native American Tribes. |
| 820 - Heritage and Visual Resources– | #12999-1 | I am basically in support of Alternative B, but I am concerned about the adequacy of the five-mile protection zone (or less if terrain shadowing permits). The problem is wind turbines. Each year sees taller turbines that are visible at greater distances. Their motion inevitably results in quick detection by the human eye. Clearly, the turbines | See Chapter 2.2.1, 2.2.2 and 2.2.3 for discussion of alternatives development. A range of alternatives has been analyzed for Congressionally Designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of |

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| Cultural Resources (5000-5013) | | distract (destroy) the evocative experience. Solar farms present similar issues if poorly sited. How will this issue be addressed? A second concern is locations where utility corridors cross and potentially impact NHTs. Best practices should include: * Reducing the amount of surface disturbance as much as possible. Corridors should cross NHTs at right angles if possible. * Co-locating project ROWs unless the proponent can clearly demonstrate that it cannot be safely done. * Confining new disturbance within existing disturbance areas. * Locating the new project within or immediately adjacent to existing disturbance zones. * Boring under high-quality ruts. * Restoring NHT routes within disturbed areas in accordance with BLM Trail Class 6. Except at ROW crossings, emigrant trails have historically received good protection. I hope that will continue but protection would be improved by the above. My final concern is degradation of the setting. A preserved setting is essential to the ability of a visitor to feel the experience of the emigrant's journey. Not unlike Native Americans, we emigrant descendants feel an emotional impact when visiting the same location that emigrants visited 175 years ago. On many occasions I have stood at the South Pass monuments and admired the mostly pristine vista. It is unsurpassed in the West for its scenic value and history. | impacts for actions in each alternative if found in Chapter 4. Best Management Practices for important cultural resource and trail setting are found in Appendix A.2.1 |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13180-1 | We urge you to please put in place the same Trails' protections for the Rock Springs Field Office that you put in place for the Lander Field Office in 2014. | Efforts were made to match surrounding Field Office trail corridor management but this may not be feasible in all situations, particularly where special management is present such as the South Pass Historic Landscape ACEC. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13247-4 | Buffer zones for National Historic Trails and other National Historic Places: In Alternative "B", The Rock Springs RMP proposes extreme buffers for National Historic Trails. See for example BLM # 7002 "Designate lands within five miles on each side of the National Historic Trails as the trail management corridor. Subject all actions within five miles on each side of the NHTs, except for highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants), to the following restrictions: 1) closed to mineral leasing; 2) closed to mineral material sales; 3) a withdrawal would be pursued; 4) exclusion area for ROWs." BLM # 6411 (restricting placement of salt and mineral supplements within 3 miles on each side of a National Historic Trail). These broad buffers that are done in a carte blanche fashion rather than on a case-by-case basis with an eye toward preserving current uses and property rights are in conflict with the following Fremont County objectives and priorities (from Fremont County NRMP, 2021): | A full range of alternatives has been analyzed in Chapter 2.2.6 MA#7002 and #6411. Analysis of impacts for each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13257-1 | Clearly Alternative B provides the greatest protection to the cultural resources, and I would support the provisions as outlined in Alternative B. Some of the best traces and remnants of the Oregon National Historical Trail and its variants are in Southwestern Wyoming and deserve protection, for once they're gone, they're gone forever. In some places, pristine stretches of the Historic Emigrant Trails are so well preserved and so undisturbed by modern development that they offer an opportunity to immerse one's self in the history of the United States by seeing the land as the pioneers would have 175 years ago and by literally walking in the pathways the pioneers traveled. It is at these segments and sites that the utmost protection be enforced. Such as, limits to direct effects i.e., Right-Of-Way Crossing, Powerlines, Transmission Lines, Access Roads, Solar, Wind etc. While the 5-mile setback on each side is a reasonable standard, exceptions could be acceptable. Where there are less than good trail remnants, a shorter set back may be in order, conversely, the indirect effects of wind turbines adversely affect the visual setting even at 5 miles. | A range of alternatives has been analyzed for Congressionally Designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative if found in Chapter 4. Best Management Practices for important cultural resource and trail setting are found in Appendix A.2.1 |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13287-18 | Alternative B's quarter-mile setback for vibroseis from NRHP-eligible sites FEIS at 2-151) is insufficient; a setback of at least one mile is necessary, particularly in the case of rock art panels (which might shear off and shatter) and structures (which might collapse) vulnerable to vandalism. | A full range of alternatives has been analyzed in Chapter 2.2.6 MA#5100 in regards to geophysical activities. Analysis of impacts for each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-1 | We want to make sure the new RMP protects the land in such a way that we, and our future generations, can continue to exercise our treaty rights through food gathering. This includes lands within the RSFO we have yet to reclaim but that have long standing significance to Tribal Members and serve as desired sites for future gathering of foods, medicines, and for other traditional uses. | Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-2 | Our ability to reclaim this important heritage depends upon the health and integrity of the entire landscape, not just cultural sites. For us, food gathering sites, cultural resources, and sacred or culturally sensitive sites cannot be separated from each other, nor can they be considered separately from the health and integrity of the surrounding lands and all the plant and animal communities therein. Within this vast area of the Greater Red Desert and Rock Springs Field Office-which includes petroglyphs, buffalo jumps, shelter rings, and vision quest sites of our ancestors-we find cultural kinship with the land which also provides our essential foods, medicines and materials | Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. |

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| | | for living. Long missing from Western land management is a holistic approach to living with the land and an acknowledgement of Indigenous Traditional ways of knowing. | |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-3 | The preferred alternative of the proposed draft management plan includes encouraging language that moves the agency toward recognizing important cultural sites, traditional knowledge and building better relationships with Tribal Nations. Additionally, it includes large, landscape-level protections, such as the proposed ACECs, that impose stringent restrictions on industrial development that could harm the integrity of important ecosystems around our gathering sites. As written, the preferred alternative begins to lay the foundation for fulfilling the BLM's Trust responsibility to protect these important lands and Tribal traditional uses into perpetuity. We would like to make sure this language and these area protections are carried forward in the final plan, as well as some new clarifications we would like to propose below: | Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-4 | * In alignment with recent national-level direction from the Executive Office and the BLM, we ask that language in the RMP goes beyond considering Tribal perspectives and includes direction on collaborating with our Tribal Governments on co-managing these important landscapes. (In reference to Management Goals HR-03, 14, 15, & 16 and any associated Management Actions including but not limited to MA's 5000, 5001, 5010, and 5200 as per BLM Permanent Instruction Memorandum 2022-0112}. | Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. Chapter 2.2.6 management actions 5000 and 5001 are common to all alternatives. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-5 | * Knowledge of our food gathering sites and other important cultural sites is not to be shared or incorporated into BLM databases unless done so in collaboration with Tribal Nations, with their approval, and in a manner such that it is "utilized to advance Indigenous aspirations for collective and individual wellbeing" | Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-6 | Chief Washakie famously said "I fought to keep our land, our water, and our hunting grounds today, education is the weapon my people will need to protect them." In this vein, "the RSAFG works hard to preserve and protect traditional knowledge. It is important to reclaim that knowledge, and protect it, so that the knowledge cannot be co-opted, commodified and sold for the benefit of others outside the community." In other words, we have inherent data sovereignty, which "includes the data itself, how the data is collected and accessed, where and how it is safely stored, and intellectual property."1 It cannot simply be given to the BLM to be incorporated, and co-opted, for BLM planning use. | Chapter 5.1.3 for how Native American Interests accounted for. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13319-7 | * Maintain landscape-level protections in the final RMP that seek to preserve the integrity of the entire ecosystem including all proposed ACECs, LWCs, overlapping protection for WSAs, management prescriptions that prioritize habitat intactness and integrity, etc. o Activities that severely fragment habitat--including aquatic habitats and water sources--that disrupt natural cycles and environmental processes, and that otherwise degrade the quality of life for all plant, rock, soil, water, animal, and other beings negatively impacts our food gathering sites. These can be anything from transmission lines, oil and gas development, hard rock mining, and road building to excessive impacts from recreation. It is imperative the land as a whole is intact and healthy, not just the plants or animals we seek to gather. | Chapter 5.1.3 for how Native American Interests are addressed. See Chapter 1.4 Planning Criteria for Tribes involvement in the planning process. A range of alternatives was analyzed regarding consultation with Tribes in Chapter 2.2.6 management actions 5200-5202. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13542-99 | Appendix T. T.1.3. Cultural Resources. T-24 The RMP states, "Activities permitted through the BLM (such as leasing of federal minerals, and mining on federal minerals) would likely disturb cultural resources." This is not a factual statement for underground mineral leases using conventional mining methods. It is also not a foregone conclusion for surface mining activities, which can study and avoid, minimize, and mitigate impacts to cultural resources. Apart from the surface refining facilities, most of the leased area has little to no surface impacts. | See Appendix T.1.1 Cumulative Analysis Methodology and T.1.2 for discussion of Cumulative Impact analysis. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13600-1 | Thanks to its culture, climate, history and sparse population, Wyoming has some of the best and best-preserved historic trails in the nation. The trails on BLM land in our state arte long, often continuous, often pristine and always open to the public. They have high historic values because their topographies and viewsheds are so similar to what they were 170 years ago. The trails are alive with past events. The trails also, of course, thread their way among numerous BLM Field Offices as they cross the West, so it's important that their management be not just top notch but consistent. Now is an opportunity to make that happen relative to your BLM neighbors to the east. | A range of alternatives for Congressionally Designated trails was analyzed in Chapter 2.2.6 management actions 7000-7022. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13600-2 | A few general comments: We are particularly glad to see Alternative B protects trails for five miles on each side. A less strict protection, according to what's clearly visible from the trails might be possible, but detailed viewshed analyses would need to be done in every case. It would be possible to reduce the five-mile restrictions if the trails are in poor condition. Protecting trails from the visual pollution of big power lines and other industrial elements is crucial to preserving their historic character. We recommend that large rights-of-way cross the main Oregon-California-Mormon-Pony Express route only on disturbed areas around Highway 191 and on the agricultural lands in the area. Near the Sublette Cutoff, similarly—crossings only on lands around Highway 191 and the developed Big Sandy/Eden reservoir lands—or along the Lincoln/Sweetwater county-line road. | A range of alternatives for Congressionally Designated trails was analyzed in Chapter 2.2.6 management actions 7000-7022. |

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| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13600-3 | We would oppose any major ROW crossings of the Lander Cutoff, the Kinney and Slate Creek variants or (my favorite part of all the trails) the Seminoe Cutoff closer to South Pass. With as many highways as there are, major ROWs should not have a hard time finding routes. | A range of alternatives for ROW crossings on Congressionally Designated Trails are analyzed in Chapter 2.2.6 management action 7007. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13600-4 | For large wind or solar projects near trails in good or better condition, please use protections similar to the ones in the Lander RMP. | A range of alternatives for Congressionally Designated trails was analyzed in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for the actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13600-5 | MA# 5011, p. 2-90, the alternative B option on stewardship programs, and Goal HR-12, p. 2-91 on recreation programs. Please include Wyoming OCTA in any trails-related planning for these programs. The Lander and Kemmerer field offices often do this already; we hope you will too. | A range of alternatives was analyzed for site stewardship in Chapter 2.2.6 management action 5011. See Appendix E, referencing the Trails for America in the 21st Century (EO 13195). |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-3 | There is no citation or mention of the promised cultural resources overview in the documents given for public comment. Similarly there are no citations to any of the major cultural resource inventory, data recovery (excavations), historic context, and syntheses reports extant for cultural sites within the Rock Springs District. The BLM should make its overview and other cultural resource studies available to the public, with consideration for removal of sensitive locational information. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-4 | The present cultural resource sections (3-11 & 4-12) are far too abbreviated and require elaboration. There is no discussion of how much of the RMP Update area has been inventoried or surveyed. How reliable is the existing cultural resources data? What is the average site density? What proportion of sites are eligible to the National Register of Historic Places (NRHP)? Given average densities and proportion of historic properties, how many eligible sites/places might remain undiscovered? The importance and significance of the highlighted cultural resource sites and landscapes needs further development. What is the rationale behind the selection and boundaries of specific Areas of Critical Environmental Concern (ACEC)? Why are certain rock art sites so important? | See Appendix C Areas of Critical Environmental Concern Evaluation for procedures used to evaluate the relevance and importance of each ACEC. See Chapter 1.4 Planning Criteria for compliance with applicable laws. S See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-5 | The cultural resources map (3-7) is incomplete. Many sites discussed in the text are not shown on this map. | Disclosure of site locations is prohibited under 43 CFR 7.18. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-6 | We hope to see a discussion in detail about how boundary determinations were made for historic trail corridors. The final EIS should reference, discuss and provide copies or links to agreements with the State Historic Preservation Office and the Advisory Council on Historic Preservation as they pertain to district resources. | A range of alternatives for Congressionally Designated trails was analyzed in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for the actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 4.12.1 Assumptions for assumptions regarding coordination with SHPO, and Chapter 5.1 Consultation and Coordination for coordination with SHPO throughout the planning process. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-8 | Much was said and promised about cultural resources in the existing (1997) RMP. What has been accomplished in conformance with the existing RMP? What have we learned about archaeology, history, and cultural resources since then? Can the BLM substantiate a proven record of follow-through on RMP commitments? These questions need an answer in your planning documents. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-9 | How much monitoring of known cultural resources and development sites (such as oil pads) has been done? What damage to cultural resources has occurred from development projects and outright looting? Is avoidance of important cultural resources effective? Do sites remain undamaged? | See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |

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| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-10 | In some parts of the District deep alluvial and aeolian sands exist making it impossible to locate many of the most potentially significant cultural resources through traditional surface walk-over inventories. In the past how many new archeological sites were found in areas with previously completed archeological inventory? Are there predictive models for significant cultural resource locations? Has the BLM tested models about where significant sites eligible for the NRHP might exist? Are backhoe and geophysical sampling protocols in place to help locate deeply buried sites and have they proven effective? | See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-14 | HR-01 page 2-86: The requirement of the RMP to compile a list of numbers and types of cultural resources and assign use allocations is a necessary part of the draft EIS. The lack of these items is a fatal flaw in the Draft RMP. We cannot assess the RMP if there is no definition of current condition of resources and if no use allocations are proposed. | See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-15 | HR-01: Compile a record of known cultural resources in the Rock Springs Field Office (RSFO) and assign those resources to appropriate uses. | See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-16 | All the remaining actions in this section (HR-2 through HR-9) need to define context and specify implementation actions. Some examples for context are numbers of sites and expected numbers of consultations. Implementation actions might include number of treatment plans anticipated, methods to promote stewardship, number of public programs and products for interpretation, the organization and frequency estimates for site steward programs to monitor site conditions and methods you plan to put in place to surveil and implement stabilization and protection measures. Implementation actions need to include milestones, timelines and costs for completion. Descriptive examples of costs include work months and expenses for overhead, contracts, supplies, equipment and transportation. HR-02: Manage each type of cultural resource according to their proper use allocation and monitor those resources' condition and use. HR-2.1: Develop activity plans or project/site-specific treatment plans or other protective measures for significant cultural resources at risk from deterioration or adverse effects from other uses. HR-03: Consult with Native American tribal governments regarding proposed land uses having the potential to affect cultural resources identified as having tribal interests or concerns. Determine the types of resources of concern to various tribes and take tribal views into consideration when making land use allocations or decisions. HR-04: Promote stewardship, conservation, and appreciation of cultural resources. HR-05: Maintain and enhance programs that provide opportunities for scientific research of cultural resources. HR-06: Provide opportunities for public education and interpretation of cultural resources. HR-6.1: Conduct presentations for schools, community organizations, and the public. HR-07: Provide for appropriate interpretation of sites of high public interest. HR-08: Pursue establishment of site stewardship programs at vulnerable cultural sites, including, but not limited to, the Tolar, White Mountain, Cedar Canyon, Sugarloaf, and La Barge petroglyph sites. HR-09: Preserve and stabilize significant cultural resources, especially resources that face immediate threat and/or historic structures in high public use areas. | A range of alternatives has been analyzed for management of cultural resources in Chapter 2.2.6 management actions 5000-5013, 5100-5127 and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. Specific implementation activities are outside the scope of this document. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-17 | We recommend that you include in the RMP a process with milestones to meet Historic Preservation Act section 110 responsibilities to inventory public lands for cultural resource sites, districts, buildings, structures and objects. | Chapter 2.2.6 management actions 5000-5003 discuss responsibilities and requirements to inventory public lands for cultural resource sites, districts, buildings, structures and objects. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-18 | MA# 5011 page 2-90: Alternative B states: Develop and enhance the site stewardship program and public education opportunities in coordination with recreation and other programs for NHTs and other sites. Alternatives B, C, D should all read the same as alternative B because BLM is required by statute to establish federal trail protection components. See especially National Trails System Act sections that: 1. Require protection of National Trails on federally managed lands and work with non-federal landowners to promote protection of trail resources on non-federal lands to administer the trail continuously (16USC1242 (a)(3),16USC1246 (a)(1)(A)) and, 2. Cooperation with volunteers and volunteer trail organizations (16USC1241(c), 16USC1246 (h)and 16USC1250). | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for site stewardship in Chapter 2.2.6 management action 5011. Analysis of impacts for actions each alternative is found in chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-27 | BLM should specify the VRM Class of each National Register and National Register property. Apply this specifically to the South Pass Historic Landscape, Rock Art Sites, Playa Sites, Archeological and Historic Districts and all ACECs designated for archeological and historic values. Our comment here reemphasizes that the relationship of these types of properties listed or eligible for inclusion in the NRHP must have integrity of setting. It follows that specific identification of the quality and character of setting is a necessary component of any consideration of eligibility. The Management Action 5402 that designates "Greater Sand Dunes ACEC, South Pass Historic Landscape ACEC, and White Mountain Petroglyphs ACEC would be managed as VRM Class II areas" | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes'. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |

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| | | should extend to the setting of all existing and identified National Register and National Register eligible sites and districts in the RMP Planning Area. | |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-28 | The MA# 5410 in Alternative B should be applied more broadly to all alternatives where settings of National Register and National Register eligible sites might experience damage through the direct and indirect impacts of land use: "Prohibit, on a case-by-case basis, surface-disturbing activities that create a moderate to strong contrast (via the visual contrast rating system) in areas managed consistent with VRM Class III and IV objectives that can be observed from areas managed consistent with VRM Class I and II (e.g., wind development)." | A range of alternatives has been analyzed for surface disturbing actions and VRM classes in Chapter 2.2.6 management action 5407. Analysis for impacts of actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-29 | Archeological Resources Protection Act We recommend that the BLM should create a new section on goals and management actions to carry out the provisions of the Archeological Resources Protection Act. This might parallel management actions for those ground disturbing activities listed in Paleontological Resources section (5300-5309; pages 2-103 to 2-106). Several goals in the "Cultural Resources" section need to specify management actions under the public education provisions and stewardship provisions of the Archeological Resources Protection Act. Management Actions for example should establish a site stewardship program with volunteers. Establish these stewardship relationships under individual and group volunteer services agreements. Make specific mention of a goal to promote and support local schools, colleges and universities and assist them to participate in BLM Project Archaeology education programs as training supported through volunteer agreements. | A range of alternatives has been analyzed for management activities regarding Cultural Resources in Chapter 2.2.6 management actions 5000-5013, 5100-5127 and 5200-5202. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-39 | 3.11 Cultural Resources (pages 3-14-3-15) We recommend that the RMP should subdivide this section into parts for: 1) National Historic Trails (NTSA), 2) Archaeological Resources (ARPA), 3) National Register eligible and listed sites, districts, buildings, structures and places including tribal and non-tribal traditional cultural properties (NHPA) and, 4) Graves and items of cultural patrimony under the Native American Graves Protection and Repatriation Act(NAGPRA). List the number of known locations and identification of types in each set in a table. Quantification of resource information is a critical part of the NEPA process. The statement that, "The area also contains more linear miles of intact NHTs, NHT candidates, and historical wagon roads than any other BLM Field Office in Wyoming" needs support. That point is not irrelevant to management actions that are driven by statute. BLM has the responsibility for the NHT resource throughout the district without reference to land ownership. The way it protects the trail resource of course must depend upon who has control of surface and subsurface rights. However, the NTSA is very clear in its definition of the federal responsibility for protection of all the congressionally designated trail corridor regardless of land ownership. At the very minimum provide a discussion of how the RMP will have impact on the NHT on lands within and adjacent to the RMP planning area (including adjoining BLM and Forest Service planning area and cumulative impacts on the corridors of the entire NHT. | See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-40 | BLM should specify the number and distribution of categories of known archeological resources with a table and with a source for the data in the statement: Prehistoric resources include lithic scatters, temporary camp sites, occupation sites, hunting/kill/butchering sites, processing areas, rock shelters, rock art, cairns, trails, and corrals. Historic resources include historic trails, stage stations, homesteads/farmsteads, roads, irrigation ditches, reservoirs, mining sites, corrals, cairns, campsites, rock art/inscriptions, and trash scatters. The Wyoming SHPO maintains a database of archeological resources by site type. It records information by township with percentage of the township surveyed. We recommend presentation of database information on a map of the planning area in order to characterize affected environment. A similar approach would use a raster-level or even point-distribution map created from the Wyoming Cultural Records Office database. An example of the distribution of Archaic bison sites is found in George C. Frison and others(2017) Middle Plains Archaic Bison Hunting in Southcentral Wyoming: Revisiting the Scoggin Site (48CR304), Plains Anthropologist, 62:244, i-414, DOI: 10.1080/00320447.2017.1374079. | See Chapter 3.11 for description of cultural resources affected environment. See the Analysis of Management Situation document on the RMP Revision eplanning site. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-46 | Move the quoted statement (page 4-139) to the "assumptions" section in 4.12.1 because it applies to all permitted land uses: Allowing opportunities to explore, locate, and develop fluid minerals in the planning area could increase surface disturbing activities, which could expose previously unknown cultural resources to discovery, thereby enhancing scientific knowledge. | See Chapter 4.2.3 Analysis Assumptions for discussion of adequacy of assumptions. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-49 | The following statement (page 4-139) is common to all alternatives. BLM should move it to "assumptions." The whole statement should apply to all alternatives. Limiting the placement of structures that visually intrude on the cultural resources could help to preserve and protect settings. What is the difference between archeological and historic resources and other resources when it comes to a consideration to permit fluid mineral extraction? How many acres will be open for permits and how many permits are expected under this alternative. What is the archeological resource density and type in those areas open to permits under this alternative and other alternatives? Allowing opportunities to explore, locate, and develop fluid minerals in the planning area could increase surface disturbing activities, which could expose previously unknown cultural resources to discovery, thereby enhancing scientific knowledge. Surface disturbing activities also have the potential to cause direct and indirect destruction or damage to cultural resources. Surface disturbing activities could impact soil and rock | See chapter 4.2 Analysis Methods, 4.2.1 Types of impacts, 4.2.2 Availability of Data and Incomplete Information and 4.2.3 Analysis Assumptions for discussion of adequacy of data, assumptions and analysis. |

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| | | stability and amplify erosion, which could damage or destroy cultural resources and could cause degradation of the setting in which the cultural resource exists. Limiting the placement of structures that visually intrude on the cultural resources could help to preserve and protect settings. Increased human presence could cause unintentional damage to both known and unknown resources through their surface disturbing activities; as well as intentional destruction through vandalism, and the unauthorized removal of structures or artifacts. | |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-50 | The information given says nothing about locations and clustering of cultural resources in relation to that for wells and oil and gas facilities, but it should. How do closures in alternatives relate to current oil and gas developed areas? Similarly the draft EIS does not address road and utility developments (pipelines, power lines) and it should. | See chapter 4.2 Analysis Methods, 4.2.1 Types of impacts, 4.2.2 Availability of Data and Incomplete Information and 4.2.3 Analysis Assumptions for discussion of adequacy of data, assumptions and analysis. A range of alternatives was analyzed for Right of Way Corridors in Chapter 2.2.6 management actions 6200-6210. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-51 | The draft EIS specifies Cultural Resource Activity Plans in the no action alternative (4-141): The preparation of site/project specific activity or development plans for five significant rock art sites in the planning area: Tolar, White Mountain, Cedar Canyon, Sugarloaf, and La Barge petroglyph sites (as well as for significant rock art sites identified in the future) as well as protective management for other cultural and historic sites could reduce or prevent damage or degradation of those sites. Surface disturbing activities could impact soil/rock stability and amplify erosion, which could damage or destroy cultural resources. Limiting the placement of structures that visually intrude on the cultural resources would help to preserve and protect settings. The management could increase protection of cultural resources from human-caused surface disturbances and the potential for loss of resources through unauthorized removals of artifacts or vandalism. What is the status of these plans? Why are there no activity plans or specific actions in Alternatives B, C & D? Examples of the kind of information that should be presented for each activity plan are in the ACEC Evaluations in Volume II, Appendix C of the RMP. | A range of alternatives has been analyzed for management activities regarding Cultural Resources in Chapter 2.2.6 management actions 5000-5013, 5100-5127 and 5200-5202. The implementation and preparation of site/project specific activity or development plans is beyond the scope of this document. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13651-58 | Indian Gap Trail is only discussed under Alternative A. Why is this? It is an equally important site under all the alternatives. Even though it may not qualify as a traditional cultural property this historic trail requires evaluation for the National Register of Historic Places and development of a management plan in compliance with NHPA and ARPA. BLM should commit to consideration of this trail as its own ACEC. | A range of alternatives was analyzed for respected places, including Indian Gap Trail in Chapter 2.2.6 management action 5201. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13665-36 | Surely there must be better approaches to conserve cultural resources than to lock off vast swaths of lands from responsible-and necessary-resource development in the hopes that there could be an "unknown" resource somewhere in the restricted area | A range of alternatives has been analyzed for management of cultural resources in Chapter 2.2.6 management actions 5000-5013, 5100-5127 and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13672-3 | The planning area includes a large amount of land in the checkerboard land ownership. The large broad-brush ROW exclusion and avoidance areas prescribed in MA#7002 and MA#7003 could make it impossible in some cases for private landowners to exercise their rights for access and development. These broad-brush exclusions and avoidance areas should be removed and replaced with case-by-case assessment in the checkerboard ownership areas. Case by case assessment of development projects has worked well under the 1997 RMP in that it has protected wildlife populations and other resources and allowed development and land uses to continue. It remains a good model to follow. | A range of alternatives was analyzed for National Historic Trails in Chapter 2.2.6 management actions 7000-7022. A range of alternatives for Rights-of-ways was analyzed in management actions 6100 - 6210. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13672-4 | The Draft RMP incorrectly applies management actions to trails that are not congressionally designated National Historic Trails (NHT). Management actions #7017-7022 in the Draft RMP incorrectly apply "NHT-like" restrictions to eligible but NOT congressionally designated trails ("non-NHT trails"). Management Actions #7017, #7018, #7019, #7020, #7021, #7022 should be removed altogether because they do not follow current rules, regulations, policy and guidance. Non-NHT trails are adequately covered by Management Actions #5000-5004. | A range of alternatives was analyzed for Trails that are eligible not designated in Chapter 2.2.6 management actions 7017-7022 . A range of alternatives for the management of cultural resources was analyzed in Chapter 2.2.6 management actions 5000-5013. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13755-8 | BLM proposes a vast increase in areas subject to right-of-way exclusion throughout the management area. Within the KSLA, most of the newly excluded areas appear to coincide with the historic Overland Trail that cross I-80 within the KLSA, and the 1850 Cherokee Trail in the southern portion of the KSLA. Current restrictions related to these trails are limited to case-bycase mitigation and avoidance of surface uses within 0.25-mile. Now, BLM would exclude uses up to 5 miles from designated or eligible historic trails. These restrictions would render exclusion zones within the KSLA completely useless for trona mining. BLM provides little justification for expanded right-of-way exclusion zones. First, for purposes of the Overland Trail in the area of the KSLA, much of trail and the associated exclusion zone is within the viewshed ofI-80 and other service roads. It makes little sense to close the area to new rights-of-way when the visual setting is already highly impacted by thousands and thousands of passing vehicles | A range of alternatives was analyzed for National Historic Trails in Chapter 2.2.6 management actions 7000-7022. A range of alternatives for Rights-of-ways was analyzed in management actions 6100 - 6210. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13776-9 | The well-preserved condition and number of intact historic trail and wagon road miles in this Field Office warrant serious protection. Ideally and for continuity, the Rock Springs RMP would match the National Historic Trails protections outlined in the Lander Field Office RMP, with similar viewshed protections and NSO conditions. For Management Actions 7001-7006, Alternative D provides the most balanced approach, acknowledging that viewshed in certain parts of the National Historic Trails has been compromised. | A range of alternatives was analyzed for National Historic Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13811-5 | The current approach to management under the Green River RMP applies restrictions to surface disturbing activities, requires effective mitigation measures, designates management corridors to protect trail or site boundaries, and restricts the placement of structures that visibly intrude on the NHT.16 These management strategies already place protections on the trails, which have survived significant development in this region for many years. Pacific does not see the need to further restrict development for purposes of trail preservation when the system in place already gives BLM discretion to make management decisions to "preserve and protect" the NHTs. | A range of alternatives was analyzed for National Historic Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13824-1 | MA 7203-7217 Range improvements that would be helpful may need to be less than 5 miles from NHT, a 1/4 mile is more than enough distance. | A range of alternatives was analyzed for National Historic Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13826-6 | BLM Goal: LR-08: Promote the increased awareness of the historical and cultural values and facilitate a sense of stewardship within the backcountry byways. My Concern: These sites that will be located in the ACECs and will not be easily accessed by people, especially older or handicapped adults, or young children. Therefore establishing many of the ancient history sites, Native American history sites and early American History sites will prevent this visitation and not promote a sense of stewardship with the residents and visitors to Wyoming. I believe this needs to also help promote respectful education of the different cultures. Of course if these site have graves or significant spiritual significance then that should be taken into consideration. But also, places such as pioneer graves, Mormon trail and South Pass for example also hold strong religious and spiritual purposes for the members of the L.D.S. church and their culture and this also needs to be taken into consideration and respected. Special Designations (SD) - Congressionally Designated Trails (7000-7022) Coordinate with recreation and other programs to provide opportunities for public visitation, interpretation, education, and appreciation of NHTs. | A range of alternatives was analyzed for the management of cultural resources, specific cultural resources, and Sacred, Spiritual or other traditional Cultural Properties in Chapter 2.2.6 management actions 5000-5013, 5100-5127 , and 5200-5202. A range of alternatives for management of Congressionally designated Trails was analyzed in management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13826-10 | BLM Goals and Objectives: * HR-03: Consult with Native American tribal governments regarding proposed land uses having the potential to affect cultural resources identified as having tribal interests or concerns. Determine the types of resources of concern to various tribes and take tribal views into consideration when making land use allocations or decisions. * SD-04: Manage for protection cultural resources for scientific study, education, and interpretation. * HR-14: Maintain existing and establish new working relationships with Native American tribes for purposes of advancing the protection of cultural resources. * HR-15: Consult, as appropriate, with Native American tribes to identify tribally sensitive resources or places that may be present within the RSFO. Safeguard all information considered by tribes to be confidential and utilize the information to prevent conflicts with incompatible uses. * HR-16: Preserve and protect the cultural remains and natural settings of Sacred, Spiritual, and/or Traditional Cultural Properties. My Comment: It seems that the BLM is actively doing this, which I fully support. Again I believe that placing these sites in ACES or restricting access by closing roads or ROW access will make it more difficult of the Native Americans to access sites as well, especially if there are members that have disabilities or are older or children. | A range of alternatives was analyzed for the management of cultural resources, specific cultural resources, and Sacred, Spiritual or other traditional Cultural Properties in Chapter 2.2.6 management actions 5000-5013, 5100-5127 , and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13826-11 | * HR-04: Promote stewardship, conservation, and appreciation of cultural resources. My Comment: If BLM choses the Alternative B how is the public going to be able to be involved in this stewardship and learn and experience the cultural sites and resources that will be within the ACECs and not accessed by maintained roads. People with physical and mental disabilities, older adults, children and individuals will not have equal access to these locations. | A range of alternatives was analyzed for the management of cultural resources, specific cultural resources, and Sacred, Spiritual or other traditional Cultural Properties in Chapter 2.2.6 management actions 5000-5013, 5100-5127 , and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13826-12 | * HR-05: Maintain and enhance programs that provide opportunities for scientific research of cultural resources. * HR-06: Provide opportunities for public education and interpretation of cultural resources. * HR-6.1: Conduct presentations for schools, community organizations, and the public. * HR-07: Provide for appropriate interpretation of sites of high public interest. My Comment: Sites that are related to Ancient cultural and geographical history should be open to the public to give them the opportunity for scientific research and for the public to observe the research in progress. For example, when there is an active dinosaur dig or local historical dig. My husband was involved in historical site digs with Dudley Gardner. I was able to occasionally go and visit and respectfully observe. Doing this taught me respect for the site, the history and the scientific process. It was a stewardship of learning for the public. This would promote further stewardship and responsibility of the public and visitors. I love going to Fort Bridger and see the site area they left open for the public to see. It gives you a sense of the science | A range of alternatives was analyzed for the management of cultural resources, specific cultural resources, and Sacred, Spiritual or other traditional Cultural Properties in Chapter 2.2.6 management actions 5000-5013, 5100-5127 , and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | and authenticity of history involved at that historic, cultural or natural site. I recommend working in cooperation with the local and state agencies to build this stewardship. In general if the public is a part of this and views the process it will hopeful instill more respect, knowledge and concern for these sites. Again, I don't believe the proposed Alternative B supports this process with sites no longer managed. | |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13826-13 | * HR-08: Pursue establishment of site stewardship programs at vulnerable cultural sites, including, but not limited to, the Tolar, White Mountain, Cedar Canyon, Sugarloaf, and La Barge petroglyph sites. * HR-09: Preserve and stabilize significant cultural resources, especially resources that face immediate public use areas. * 5001 HR-15, HR-03 Identify culturally sensitive sites on BLM-administered lands within the planning area. * HR-09, HR-08, HR-2.1, HR-6.1 Protect and preserve representative samples of the full array of significant cultural resources for the benefit of present and future generations. * 5003 HR-02, HR-03Coordinate with other BLM programs preplanning measures to prevent potential conflicts before they occur. * HR-10: Preserve and protect the historical remains and historical setting of the South Pass Historic Landscape ACEC. See the ACEC section for management alternatives for these resources. * HR-11: Establish appropriate management prescriptions for the South Pass Historic Landscape ACEC. * HR-12: Coordinate with recreation and other programs to provide opportunities for public visitation, interpretation, education, and appreciation of the South Pass Historic Landscape ACEC. * HR-13: Preserve and protect the cultural remains and natural settings of significant rock art sites, including but not limited to Tolar, White Mountain, Cedar Canyon, Sugarloaf, and La Barge petroglyph sites. See the Areas of Critical Environmental Concern section for management alternatives for these resources. If they are not designated ACECs, then management actions for them would be analyzed in this section. * HR-21: Provide opportunities for the public to enjoy limited recreational collection of common invertebrate and plant fossils in portions of the planning area. * HR-22: Develop interpretive sites relative to paleontological resources. * HR-23: Promote and implement stewardship, conservation, and protection of paleontological resources. * HR-24: Ensure areas containing, or likely to contain, vertebrate or noteworthy occurrences of invertebrate or plant fossils are identified and evaluated prior to authorizing surface-disturbing activities. My Comments: Having been born and raised in Sweetwater County again I think this is an essential BLM goal and objective but it can not be achieved if these sites are designated as ACECs where they will not be accessible by the general public. Many of these sites, I didn't even realize, where available to visit or view. I would like to see programs that would promote this stewardship, respect and educate the residents. | A range of alternatives was analyzed for the management of cultural resources, specific cultural resources, and Sacred, Spiritual or other traditional Cultural Properties in Chapter 2.2.6 management actions 5000-5013, 5100-5127 , and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-1 | Many of these THPO offices are not included in the BLM's current consultation list as presented in the draft RMP and would fall within the parameters of management goal HR-14's proposed mandate to "establish new working relationships with Native American Tribes." In this vein, we recommend updating the list, and subsequently extending an offer for, consultation with additional Tribes prior to issuing a record of decision, including but not limited to: ? Eastern Shoshone THPO ? Northern Arapaho THPO ? Shoshone-Bannock HeTO (Heritage Tribal Office) ? Crow THPO ? Ute Indian Tribe of the Uintah and Ouray Reservation ? Southern Ute Indian Tribe ? Ute Mountain Ute Tribe ? Rocky Mountain Tribal Leaders Council These Tribal Nations also have ties to this landscape and BLM consider soliciting their input: ? Fort Belknap Indian Community ? Rosebud Sioux Tribe of Indians ? Cheyenne & Arapaho Tribes ? Comanche Nation ? Northern Cheyenne Tribe ? Lower Brule Sioux Tribe ? Kiowa Tribe ? Osage Nation 1 1851 Fort Laramie Treaty, Fort Bridger Treaty of 1863 and 1868, and the websites of above mentioned Tribal Nations, which provide descriptions of ancestral homelands and territories. https://native-land.ca/ is a helpful reference site for Tribal homelands and Treaties. ? Fort Peck Assiniboine & Sioux Tribes ? Navajo Nation ? Te-Moak Tribe of Western Shoshone | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-3 | The lands within the Rock Springs Field Office encompass the traditional homelands and migratory territories of over many Tribal Nations, several of which continue to practice traditional uses and enact reserved treaty rights on these landscapes-including gathering food and medicines-that are dependent upon intact, functioning ecosystems as a whole, not just impacts to individual cultural sites. When determining when and how to conduct meaningful consultation, it is important to note the entire landscape is often of significance to Tribal Nations and thus they should be included in a collaborative manner when determining how all resources are managed and when consultation is warranted. The Department of Interior issued a Joint Secretarial Order on Co-Stewardship3 and the BLM offered additional guidance through PIM2022,4 stating that the BLM will meet and consult regarding co-stewardship opportunities and evaluate proposals submitted by Tribes, including proposals to build both Tribal and Federal capacity to carry out the SO. | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-4 | While the draft RMP references taking Tribal concerns into consideration, it does not reflect current guidance directing the BLM to collaborate with Tribal Nations on co-stewarding resources of interest to Tribal Nations within the Rock Springs Field Office. PIM 2022-011 further notes "the BLM can also use land use plans to formalize its commitment to engage in co-stewardship arrangements for subsequent implementation decisions. For example, the BLM can incorporate Tribal priorities into the designation and management of resource management areas, etc."6 We urge BLM to update Management Goals HR-03, 14, 15, & 16 and any associated Management Actions (including but not limited to MA's 5000, 5001, 5008, 5010, 5109, 5123 and 5200) to include better direction on collaborating with Tribes, not just considering their concerns. | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. |

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| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-5 | Management Goal HR-03 states:"Consult with Native American tribal governments regarding proposed land uses having the potential to affect cultural resources identified as having tribal interests or concerns. Determine the types of resources of concern to various tribes and take tribal views into consideration when making land use allocations or decisions." The BLM should alter this language to state "consult with Native American Tribal Governments regarding proposed land uses having the potential to affect resources identified as having Tribal interests or concerns. Determine the types of resources of concern to various Tribes and collaborate with Tribal Nations on co-stewarding Tribal Cultural Sites (defined below) and related resources, especially when making land use allocations or decisions." | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-6 | It is a misconception that Tribal Nations are only concerned with archaeological sites or sacred sites, or conversely that cultural resources in the eyes of Tribal Nations only refer to archaeological resources or sacred sites. In the absence of a clarifying definition from individual Tribal Nations, we propose the following definition for Tribal Cultural Sites. Tribal Cultural Site: "Tribal cultural site" refers to: a sacred site; a historic property (as defined in section 800.16 of title 36, Code of Federal Regulations); or a landform, landscape or location that-(a) is or may be important to the customs, practices, objects, places, religions, or ceremonies of an Indian Tribe; (b) is or may be important to an Indian Tribe for the undertaking of religious, cultural, spiritual, traditional subsistence, or other traditional practices; (c) contains unique or important traditional Tribal food, medicinal, or material gathering areas; or (d) is connected through features, ceremonies, objects, histories, or cultural practices to other sites or to a larger sacred landscape, as determined by an Indian Tribe8." | See Glossary for the definition of 'cultural resources' that BLM used in the preparation of this document. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-8 | MA 5000 should include direction on identifying and managing Tribal Cultural sites for the benefit of present and future generations in collaboration with and, if so-desired, in co-stewardship with said Tribal Nations. | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. A range of alternatives regarding relationships with Tribes was analyzed in Chapter 2.2.6 management actions 5200 - 5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13827-9 | we recommend the BLM modify MA 5010 to specify Tribal traditional use. Additionally, as per the BLM's Federal Trust Responsibility, it should be made clear that if there is a conflict between Tribal traditional use and scientific or experimental use, Tribal interests will take priority. This should apply to the management of steatite quarries as indicated in Alternative D for management action 5008 but with the solid and fluid mineral closures as listed in Alternative B. Similarly, Tribal consultation, collaboration, and priorities should take precedence over scientific inquiry when considering management actions regarding known archaeological sites such as those included in the West Sand Dunes Archaeological District and listed in Management Action 5109. | A range of alternatives for the management of cultural resources was analyzed in Chapter 2.2.6 management actions 5000-5013. A range of alternatives regarding relationships with Tribes was analyzed in Chapter 2.2.6 management actions 5200 - 5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13865-33 | 7. Cultural Resources Cultural resources follow the Section 106 process that is consistent between Federal and State agencies. This process is broader than the BLM and includes Tribes and Tribal consultation, State Historic Preservation Offices (SHPO), Oregon California Trail Association (OCTA), and National Historic Trails (NHT). Any changes to the evaluation of adverse direct or indirect effects would create a situation in which the RSFO would be inconsistent with adjacent BLM Field Offices and would create anomalous criteria within established processes for National Historical Register (NHR) evaluations. All historical properties should be managed under the established Section 106 evaluation process including for indirect visual protocols. To maintain consistency with other agencies and Tribal processes and to avoid BLM overreach of its authority, PacifiCorp recommends that the BLM adopt Alternative A for MAs #5100 through #5127. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. A range of alternatives was analyzed for Specific Cultural Resources in Chapter 2.2.6 management actions 5100-5127. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13865-60 | A.2.1. For resources that require multi-agency agreement such as cultural, no action should take place that is inconsistent with established BLM protocol in adjacent Field Offices with agencies such as SHPO, tribal consultation or NHT. Buffers on the trail should remain the same and consistent. VRM classifications should go through the evaluation process and be defined geographically in a manner that captures the intended protection clearly if there are proposed changes. The Green River formation is shared by four Field Offices and there would be no benefit in changing the stipulations for Paleontology and the management of fossil rich strata. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13911-10 | The other resource values requiring protection in the ACEC analysis include areas of cultural significance, such as rock art panels, petroglyphs, and other geological features, as well as historic trails. While the Coalition does not object to the relevance and importance of some of these sites, it does not agree with the expansive additional acreage proposed under Preferred Alternative B. In its analysis, the BLM fails to recognize the statutes that protect these types of sites. For example, Cedar Canyon, La Barge, Sugarloaf, Tolar, and White Mountain, which are areas that contain rock art and petroglyphs, are already protected by the Archaeological Resources Protection Act ("ARPA"), 16 U.S.C. §§ 470aa-470mm, and the National Historic Preservation Act ("NHPA"), 54 U.S.C. §§ 300101-300315; 36 C.F.R. Part 800. In addition, under all alternatives, the BLM proposes to manage rock art sites and their surrounding viewshed "to protect their cultural and historical values" by prohibiting surface occupancy, placing a no surface occupancy for fluid minerals, designated it as a right-of-way exclusion area, etc. DEIS at 2-91 - 2-92 (Mgmt. Action #5100). The BLM must show additional special management is required to protect these resources or that the current laws are inadequate to protect them before designating them as ACECs. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. A range of alternatives was analyzed for the management of cultural resources, specific cultural resources, and Sacred, Spiritual or other traditional Cultural Properties in Chapter 2.2.6 management actions 5000-5013, 5100-5127 , and 5200-5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13911-11 | Finally, national historic trails and wagon roads are also protected by the NHPA and do not necessitate a large swath of land to be designated as an ACEC to protect the trails themselves. Pursuant to the National Register Bulletin #15, a trail must also retain its integrity to be considered in the National Register of Historic Places. A trail must still be well-established or still visible, and not obscured by modern use. For those that are visible, a ¼ mile buffer on each side of the trail is only warranted pursuant to the National Trails Act. See e.g. 16 U.S.C. § 1244(a)(3) ("The authority of the Federal Government to acquire fee title under this paragraph shall be limited to an average of not more than ¼ mile on either side of the trail."). In addition, the BLM fails to explain why the National Historic Trails within the Proposed South Pass Historic Landscape ACEC would require an additional 50,000+ acres under the Preferred Alternative B to protect trails that any many places are no longer visible. See DEIS at 2-195 (Mgmt. Action #7498 - expanding South Pass ACEC from 53,940 acres to 171,300 acres under Preferred Alternative B). | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13912-9 | As an initial matter, BLM has no authority to manage the non-federal lands within the checkerboard to "preserve the existing character of the landscape" for the benefit of trails without national historic designations. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives was analyzed for eligible but not designated trails in Chapter 2.2.6 management actions 7017 - 7022 |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13912-11 | BLM provides little or no justification for this significant change in management for historic trails. BLM does not explain why current protections, which are applied on a case-by-case basis, are now inadequate to protect historical resources. Indeed, all federal actions in the planning area, regardless of their distance from historic trails, must undergo National Historic Preservation Act Section 106 consultation, including consultation with the State Historic Preservation Office ("SHPO"). That means that under current management, undertakings within the viewshed of these trails are already carefully examined, cautiously permitted, and subject to minimization and mitigation requirements in consultation with the SHPO. Blanket restrictions that place large swaths of public lands off limits to preserve the landscape for a handful of potential historic trail users illegally violate BLM's multiple-use obligation, and in checkerboard areas, these restrictions, make no sense where existing private surface uses affect the visual landscape and BLM cannot effectively manage to avoid interference with the historical setting. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13913-4 | BLM should conduct further consultation to explore opportunities for incorporating the directions and intentions of incorporate the directions and intentions of both Secretarial Order 3403 "Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters" and BLM's commitments to adhere to the principles in that Order, outlined in Permanent Instruction Memorandum 2022-011. That instruction memorandum notes "the BLM can also use land use plans to formalize its commitment to engage in co-stewardship arrangements for subsequent implementation decisions."4 We urge BLM, through consultation prior to the signing of the ROD, to incorporate in this guidance and identify places Tribal Nations can not only be involved in designing, but be involved in the implementation of, management actions. | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. A range of alternatives regarding relationships with Tribes was analyzed in Chapter 2.2.6 management actions 5200 - 5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #13913-5 | C. Update definition of Tribal Cultural Site BLM has the opportunity in this RMP to acknowledge that Tribal Nations have interests in the planning area that extend beyond archaeological or spiritual sites. Secretarial Order 3403 notes that "lands and waters contain cultural and natural resources of significance and value to Indian Tribes and their citizens, including sacred religious sites, burial sites, wildlife, and sources of indigenous foods and medicines." Cultural resources need not only refer to archaeological resources or sacred sites but include lands where Tribal members food-gather, hunt, seek connections, recreate, practice customs, or are important for other uses. In the absence of a clarifying definition from individual Tribal Nations, which BLM could solicit during future consultation, we propose BLM consider the following definition for Tribal Cultural Sites. This definition is aligned with the definition in the proposed "Tribal Cultural Areas Protection Act," legislation authored by numerous Tribal Historic Preservation Offices as well the National Association of Tribal Historic Preservation Officers. "Tribal cultural site" refers to: a sacred site; a historic property (as defined in section800.16 of title 36, Code of Federal Regulations); or a landform, landscape or location that-(a) is or may be important to the customs, practices, objects, places, religions, or ceremonies of an Indian Tribe; (b) is or may be important to an Indian Tribe for the undertaking of religious, cultural, spiritual, traditional subsistence, or other traditional practices; (c) contains unique or important traditional Tribal food, medicinal, or material gathering areas; or (d) is connected through features, ceremonies, objects, histories, or cultural practices to other sites or to a larger sacred landscape, as determined by an Indian Tribe." | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Glossary for definitions that BLM used in the preparation of this document. |
| 820 - Heritage and Visual Resources–Cultural Resources (5000-5013) | #14032-10 | on December 1, 2022, when the Departments of Agriculture and the Interior announced implementation of new policy recommendations designed to increase Tribal engagement in mining 11 https://www.fema.gov/floodplain-management/intergovernmental/federal-flood-risk-management-standard 12 https://www.ecfr.gov/current/title-44/chapter-I/subchapter-A/part-9 proposals and protect Tribal interests and resources from the impacts of mining; a key land use activity provided for in the RSFO RMP/EIS. Under this policy, DOI agencies are directed to: * Begin informing all potentially impacted Tribal governments of exploration "notices" when those notices are received by the agency, and create an easy-to-use website that will allow Tribal Governments and the general public to see | See Chapter 5.1.3 for discussion of Native American Interests. See Chapter 5.3 of Tribal Governments that were included in this planning process. A range of alternatives regarding relationships with Tribes was analyzed in Chapter 2.2.6 management actions 5200 - 5202. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | what exploration notices have been submitted on BLM-managed public lands (specific to the DOI); * Begin the development of a system that will allow Tribal Governments to confidentially specify geographic areas of interest and receive notifications when mineral exploration or mining proposals occur within those areas; * Invite Tribal Governments to participate in pre-exploration or mining plan submission meetings with mine developers; * Explore the formation of intergovernmental teams composed of federal, Tribal, state and local government officials to facilitate information-sharing and identification of issues of concern related to mining proposals; * Consult with Tribal Governments on reclamation plans and appropriate financial assurance levels for mineral exploration and mining proposals, and engage Tribes in discussions about desired post-mining land uses; and * Make additional efforts to include Tribal Governments who have a current or historical presence in a potentially impacted area, or who would be impacted by mineral development, to participate in the NEPA process as cooperating agencies. The EPA encourages BLM to use these directives in informing its on-going and future consultation efforts with American Indian Tribes around project-specific mining (and all other) proposals in the planning timeframe covered by the RMP/EIS, as well as to develop potential related goals, objectives, and management directions to include in Table 2-1 in the Final RMP/EIS specific to Tribal interests. | |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #9774-9 | Raising additional questions, we inquire whether the BLM has maintained contact with the relevant THPOs in Wyoming since the commencement of this plan in 2011. With representatives for the Northern Arapaho Tribe and the Shoshone Tribe of the Wind River Reservation, we underscore the importance of consulting with tribal representatives despite the geographic distance from Rock Springs. The omission of information regarding tribal cultural resources in the RMP/DEIS further underscores the need for comprehensive engagement. | See Chapter 5.1.3 Native American Interests for discussion of BLM consultation efforts with Native American Tribes. See Chapter 1.4 Planning Criteria for involvement of Tribes in the planning process. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13287-14 | In addition, BLM should use eminent domain to acquire a legal public access along the Barrel Springs county road, so the public can have access along the Overland Trail route without trespass. We agree with the direction to consult with tribes on Traditional Cultural Properties; we would encourage BLM to apply the same stringent site-and-viewshed protections to tribally-identified sites as it does to specific cultural resources under Alt. B at p. 2-91. | See Appendix K - Land Tenure Adjustment Criteria for discussion of acquisition, retention and disposal criteria for public lands. A range of alternatives has been analyzed for Specific Cultural Resources in Chapter 2.2.6 management actions 5100-5127. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13651-19 | MA# 5012 page 2-90: Alternative B states: Avoid ground disturbance activities through use of a minimum 500 foot buffer around sites eligible for inclusion in the National Register of Historic Places under Criterion D (because of their scientific information content). Ground disturbance activities include geophysical activities. This avoidance distance might be appropriate for sites eligible for the NRHP under other criteria as determined on a case-by-case basis. Develop appropriate mitigation measures if a site cannot be avoided. Alternatives C and D vary only by the avoidance difference (100 feet instead of 500): Avoid ground disturbing activities, including geophysical activities, on sites eligible for inclusion in the NRHP under Criterion D (because of their scientific information content) by at least 100 feet. This avoidance distance could be appropriate for sites eligible for the NRHP under other criteria and would be determined on a case-by-case basis. Develop appropriate mitigation measures if a site cannot be avoided.Avoidance and treatment measures should take account of "integrity of setting." If a site is avoided then that avoidance should include the integrity of the visual and sound characteristics of the setting. The plan should require the establishment of the significant parameters of setting as part of a determination of eligibility. Treatment measures must include documentation of the setting when a decision is made that avoidance of an eligible site is not possible. The distance of the impacts from the visual and audible setting of the site become a "mitigation measure" in themselves and will vary based on the context and nature of the site under consideration. We would expect different treatment and avoidance measures in the setting of a tool-stone source versus a habitation site. The BLM should develop these alternate measures on a site-by-site or where appropriate on a class of site basis. All alternatives should state that avoidance is the normal treatment. Other forms of mitigation require external coordination before their use. | A range of alternatives has been analyzed for sites eligible for inclusion in the NRHP in Chapter 2.2.6 management action 5012. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13651-21 | MA 5100 HR-13, HR-16, HR 6.1 pages 2-91 How does the viewshed differ within the settings of these five rock art sites? The setting of a National Register eligible or listed rock art site will include the viewshed and sound-shed as integral information defining the site. Therefore having a variable protection area for the setting by alternative (3 miles for Alternative B, ¼ mile for Alternative C and ½ mile for Alternative D) is inconsistent with the conservation of integrity of setting that made the site eligible for the National Register. If the BLM permits activities which alter setting then it needs to construct appropriate treatment measures on a case-by-case basis. Permit actions within the sound-shed and viewshed (setting) of National Register properties will require consideration of treatment measures. National Register site descriptions should define important aspects of setting. To have buffer zones at an arbitrary distance makes no more sense for Rock Art Sites than it does for the historic landscape of the South Pass Historic Landscape National Register property. This measure should commit to a National Register nomination update which defines the variable distance boundaries of the rock art sites to include viewshed and sound-shed characteristics. The alternative is to continue an unworkable solution that places an arbitrary buffer zone distance and clouds the assessment of direct and indirect effects on National Register properties. Reworking | A range of alternatives has been analyzed for Rock Art Sites in Chapter 2.2.6 management actions 5100-5106. Analysis of impacts for actions in each alternative is found in Chapter 4 |

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| | | the relationship between sound-shed and viewshed as components of the setting of National Register and National Register eligible sites requires a rewrite of the rock art Management Actions 5100 through 5106 (from page 2-91 through 2-96). | |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13651-22 | Playa Lake Areas MA # 5109 (page 2-96) The RMP should define Playa Lake areas as locations where National Historic Preservation Act Section 110 inventories must occur. The inventory would have a goal to define National Register historic districts. BLM should commit to prepare a thematic Multiple Properties Documentation Form which establishes the qualities of integrity of these areas (including the setting-landscape) within Playa Lake areas. The plan should identify all playas as potential areas where special treatment measures are likely. Activities such as fencing, interpretive signs, or barriers to ensure protection of the area are appropriate under all alternatives and serve in lieu of extensive data recovery within Playa Districts. The BLM should advise proponents of undertakings that additional treatment measures and associated costs are possible for activities in playa lake settings. | Specifying specific areas for 110 inventory are project implementation level decisions and are outside the scope of this document. A range of alternatives has been analyzed for management of Specific Cultural Resources in Chapter 2.2.6 management actions 5100 - 5127. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13651-23 | West Sand Dunes Archaeological District MA# 5122 (page 2-99) Clarify what is meant by the statement in Alternative C that "The West Sand Dunes Archeological District would not be retained." Why? Does BLM intend to excess this land? If the West Sand Dunes Archeological District is a National Register or National Register eligible property then all alternatives would require measures to protect the archeological district or mitigate its loss: this is a matter of use allocation. The language here should tie into the mandatory designation of use allocation of archeological and historical sites. Use allocation needs to be part of the RMP designations by site type. | A range of alternatives has been analyzed for the West Sand Dunes Archaeological District in Chapter 2.2.6 management actions 5122 - 5127. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13702-9 | American Graves Protection and Repatriation Act of 1990 (NAGPRA)is disregarded in MA 5112. Under NAGPRA all known human burial sites would be protected regardless of their ethnic affiliation. 43 CFR 10.4 provides a process for Federal agencies to address new inadvertent discoveries of Native American human remains, funerary objects, sacred objects and objects of cultural property intentionally excavated or inadvertently discovered on Federal or Tribal lands. 43 CFR 10.4(d)(2) states that "The activity that resulted in the inadvertent discovery may resume thirty (30) days after certification by the notified Federal agency of receipt of the written confirmation of notification of inadvertent discovery if the resumption of the activity is otherwise lawful." | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for known burial sites in Chapter 2.2.6 management action 5112. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13751-85 | Cultural Resources: MA #5112 does not take into consideration the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA). Under NAGPRA all known human burial sites would be protected regardless of their ethnic affiliation. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for known burial sites in Chapter 2.2.6 management action 5112. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13751-141 | MA #5112 ALT A Industry Position: Not Acceptable Reasoning: This is a very rare potential risk and as managed under Alternative A has worked appropriately. However, it provides no option for mitigation. ALT B C D Industry Position: Not Acceptable Reasoning: No option for mitigation. | A range of alternatives has been analyzed for known burial sites in Chapter 2.2.6 management action 5112. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13784-30 | * MA#5100, Alt. B: Rock Art Sites with additional acreages within a three mile areas. "Prohibit surface disturbing activities, visual intrusions, and audible intrusions, within these areas." Comment: These additional acres are in addition to ACECs and will undoubtedly cause negative impacts to the livestock grazing industry by prohibiting the ability to implement range improvement projects. It remains unclear of all activities considered and prohibited as a surface disturbing activity. | A range of alternatives has been analyzed for viewshed of rock art sites in Chapter 2.2.6 management action 5100. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13787-67 | MA #5112 HR-09, HR-16 All known human burial sites would be protected regardless of their ethnic affiliation. Management of Native American burial sites would take into account recommendations from appropriate tribes. Data recovery would not be the preferred method for mitigation of adverse effects to any burial location. Industry Position: Not acceptable Reasoning: This is a very rare potential risk and as managed under Alternative A has worked appropriately. However, it provides no option for mitigation. Close all known human burial sites, regardless of their ethnic affiliation, to surface disturbing activities that could adversely affect the sites. Manage as: 1) NSO for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing; 4) an exclusion area for all new ROWs. Management of Native American burial sites would take into account recommendations from appropriate tribes. Excavation/data recovery would not be the preferred method for mitigation of adverse effects to any burial location. Industry Position: Not acceptable Reasoning: No option for mitigation. Same as Alternative A Industry Position: Not acceptable Reasoning: No option for mitigation. Close all known human burial sites, regardless of their ethnic affiliation, to surface disturbing activities that could adversely affect the sites. Manage as: * NSO for fluid minerals * Close to mineral material sales/disposal * Designate an exclusion area for | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for known burial sites in Chapter 2.2.6 management action 5112. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | all new ROWs. Consult with appropriate tribes regarding management of Native American burial sites and surrounding areas. Excavation/data recovery would not be the preferred method for mitigation of adverse effects to any burial location. Any burial located in the future will be managed with the same prescriptions as known burial sites. Industry Position: Not acceptable Reasoning: No option for mitigation. All known human burial sites would be protected regardless of their ethnic affiliation. Management of Native American burial sites would adhere to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), which provides a process in 43 CFR 10.4 for Federal agencies to address new discoveries of Native American human remains, funerary objects, sacred objects and objects of cultural property intentionally excavated or inadvertently discovered on Federal or Tribal lands. Resource: Heritage and Visual Resources (HR) - Paleontological Resources (5300-5309) | |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13827-12 | Management Action 5112 under Alternative B and D attempts to acknowledge Tribal Nations "right of possession" and NAGPRA's mandate to protect all known burial sites located on Federal lands. However, we believe it does not adequately address potential impacts to said burial sites and is a strong candidate for incorporating a provision requiring Tribal concurrence for all actions relating to burial site management. These sites would best be protected by combining language in Alternative B with that in D. We agree that all known burial sites should be closed to mineral material sales/disposal, closed to solid mineral leasing, an exclusion area for right-of-ways, and recommend closure to fluid minerals in place of leasing with no surface occupancy stipulations so as to prevent any below-ground disturbance to unknown but possibly closely located human burials. To that end, we recommend incorporating Alternative D's provisions to manage any burial located in the future with the same prescriptions as known burial sites. We also support language in Alternative B that stipulates excavation and data recovery would not be the preferred method for mitigation. However, we believe that language in Alternative D requiring consultation with appropriate Tribes regarding burial sites and the surrounding area moves the field office toward meeting the intent of NAGPRA. To fully meet the intent of NAGPRA, however, and PIM 2022-011, we recommend including additional language that requires Tribal concurrence for any project or decision that may affect known or unknown burial sites within the field office. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for known burial sites in Chapter 2.2.6 management action 5112. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13848-5 | BLM provides no factual basis for its decision to impose 4 to 10 mile buffers around undesignated trails or any basis for deciding that any resources associated with the trails could be protected with less restrictive means. | MA#7000-7022 (Special Designations – Congressionally Designated Trails) discuss the full range of alternatives considered in the EIS. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13848-9 | With the exception of the 1850 Cherokee Trail, which is currently being studied by the National Park Service for eligibility as a national historic trail, eligible but not designated trails within the checkerboard should have no rights of way exclusion and retain a one quarter mile protective set back on either side of contributing sections of trails. Those eligible but not designated trails include but are not limited to 1849 Cherokee Trail, Overland Trail, Point of Rocks to South Pass Road, and other expansion era roads and trails. | A range of alternatives has been analyzed for management of Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 821 - Heritage and Visual Resources–Specific Cultural Resources (5100-5127) | #13899-21 | The most common damage to rock art in the Rock Springs Field Office happens in the form of vandalism. Because of the sensitive nature of archaeological rock art sites, we support Alternative B's management actions to manage significant rock art sites (including both prehistoric and historic inscriptions) and their surrounding viewshed (the actual area that can be seen from the rock art sites, within three miles) to protect their cultural and historical values. Visibility [viewshed] is of major importance to how humans relate to and interpret the landscape. People often describe a place based on the visibility.73 Viewshed analysis is, therefore, an important element in the interpretation of the landscape for understanding past societies and should be implemented into land management strategies. We agree with the analysis of protected acres and viewshed protected acres listed under Alternative B for the rockWe support the prohibition of surface disturbing activities, visual intrusions, and audible intrusions, within these areas. Our organizations contend that the management of visitor use at rock art sites could include interpretive signing, fencing, barriers, and other activities with particular emphasis on addressing vandalism at the sites. As noted in the Tribal Consultation and Co-stewardship section of this document, the BLM can also use land use plans to formalize its commitment to engage in co-stewardship arrangements for subsequent implementation decisions. We recommend that the BLM incorporate Tribal priorities into the management of visitor use at Indigenous rock art sites. And for all culturally significant areas, we recommend that the BLM prioritize and fund Tribal-led stewardship of these sites.[...] art sites at Cedar Canyon (311 acres + 4,008 viewshed acres), LaBarge Bluffs (20 acres + 5,008 viewshed acres), Sugarloaf (20 acres + 371 viewshed acres), Tolar (20 acres + 1,512 viewshed acres), and White Mountain (20 acres + 4,780 viewshed acres). | A range of alternatives has been analyzed for management of Rock Art Sites in Chapter 2.2.6 management actions 5100-5105. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 5.1.3 Native American Interests, for discussion of consultation with Tribes. |
| 821 - Heritage and Visual Resources– | #13913-2 | Other Historic Trails The Rock Springs Field Office hosts several other nationally and regionally important trails the BLM considers "Eligible but not Designated" for the National Register of Historic Places. Of note is the Cherokee Trail, which is still under assessment by the National Parks Service, and the Overland Trail. There are | A range of alternatives has been analyzed for management of Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Specific Cultural Resources (5100-5127) | | also many local routes and roads, like the Point of Rocks to South Pass trail. Many of these trails have significant acreage in the public-private land checkerboard, making access and preservation difficult. We find the Management Actions proposed in Alternative D would suffice to maintain these trails amidst the array of multiple uses, including rights-of-way corridors, that should be permitted in the checkerboard (as opposed to in other intact, high-value landscapes in the Field Office). Of note, we believe where these trails intersect with established Section 368 Energy Corridors, the rights-of-way should be allowed to cross the trails and not be in full avoidance. We do support avoidance of rights-of-way for wind and solar energy developments on and within the buffer of these trails. Because these trails have seen, and will see, future development that impacts their setting we encourage the BLM to establish a management action regarding mitigation-one that would include supporting local and state-based educational efforts regarding these trails. | |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13651-24 | What is a "Native American tribe?" The US government has special responsibilities to "federally recognized Indian Tribes" in a government to government relationship. We recommend that the BLM should define how this relationship transpires in a different section independent of "Heritage and Visual Resources." | Chapter 5.1.3 discusses Native American Interests in regards to the DEIS. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13651-25 | If there are special interests in "American Indian" heritage resources, include here language to identify Indian tribes with such interests. That identification would include specific Tribal Historic Preservation Offices, where they exist, and federally recognized American Indian Tribes that do not currently have Tribal Historic Preservation Offices under 54 CFR § 302701 - § 302706. Especially relevant is the language in 54 CFR § 302701 (b)(2): | Chapter 5.1.3 discusses Native American Interests in regards to the DEIS. MA#5200-5202 and H.R.#14-16 address consultation and relationship with Native American tribes. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13651-26 | Instead of a vague description of relationships, this is an ideal section to identify which Tribes have geographic affinity to the Rock Springs RMP. BLM should commit to coordination with relevant tribal interests. Coordination should occur through relationships that exist with established tribal historic preservation offices and, where a defined relationship with tribal historic preservation offices does not exist, the BLM should coordinate with tribal governments to determine the range and complexity of their interests. Those interests may go beyond how they wish to get National Historic Preservation Act and the Native American Grave Protection and Repatriation Act information for future consultation. This section should attempt to set a baseline standard for these relationships. | Chapter 5.1.3 discusses Native American Interests in regards to the DEIS. MA#5200-5202 and H.R.#14-16 address consultation and relationship with Native American tribes. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13806-4 | To improve upon the language proposed in the draft, and in support of my Tribal member friends and colleagues, I recommend the BLM include improved direction on collaborating with Tribal Governments in co-managing important landscapes, as opposed to simply considering Tribal perspectives. This is in alignment with recent national-level direction from both the Executive Office and the BLM. (In reference to Management Goals HR-03, 14, 15, & 16 and any associated Management Actions including but not limited to MA's 5000, 5001, 5010, and 5200 as per BLM Permanent Instruction Memorandum 2022-011). This collaboration should extend to knowledge sharing. Traditional knowledge is not to be shared or incorporated into BLM databases unless done so in collaboration with Tribal Nations, with their approval, and in a manner such that it is "utilized to advance Indigenous aspirations for collective and individual wellbeing". (In reference to RMP Management Goals HR-14 & 15 and ssociated MA 5200 under Alternative B as per 2022 OSTP-CEQ Memorandum on Indigenous Knowledge). | Chapter 2.2.6 management actions 5200-5202 and H.R.#3, 4, & 14-16 address consultation and relationship with Native American tribes. See Chapter 1.4 Planning Criteria for coordination/consultation with Native American Tribes. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13827-7 | Management Action 5201 under Alternative D states: "Consult with Tribal leaders, SHPO, and the activity proponent when an activity is proposed in the vicinity of TCPs, sacred sites, or places of cultural or religious importance. Design management based on the characteristics of the site and the proposed activity. Mitigate activities, on a case-by-case basis, to protect the site and surrounding setting." We recommend modifying the management action to replace "sacred sites or places of cultural or religious importance" with "Tribal Cultural Sites". We also recommend Alternative D's variation on the language provided that subsequent consultation with Tribal Nations determines an acceptable and agreed upon understanding of "in the vicinity" so as to ensure Tribal priorities and concerns are addressed. The management action should further be modified to direct the BLM to collaborate with Tribal Nations on appropriate management and mitigation. | Chapter 2.2.6 management actions 5200-5202 (Sacred, Spiritual or other Traditional Cultural Properties) discusses the full range of alternatives considered in the EIS. |
| 822 - Heritage and Visual | #13827-10 | Indigenous Traditional Knowledge and knowledge of Tribal cultural sites is not to be shared or incorporated into BLM databases unless done so in collaboration with Tribal Nations, with their approval, and in a manner such that | See Chapter 5.1.3 Native American Interests. |

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| Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | | it is "utilized to advance Indigenous aspirations for collective and individual wellbeing"11. While we commend the BLM on seeking to update management in the Rock Springs Field Office to incorporate Indigenous Knowledge and to protect the confidentiality of said knowledge- as is referenced in Management Goals HR-14, HR-15 and associated Management Action 5200 under Alternative B-it still falls short of recognizing and protecting Indigenous data sovereignty. | |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13827-11 | While we support the intent of Management Action 5200 as written under Alternative B and ask that it be retained in the final plan, we ask that in recognition of our Tribal partners' knowledge sovereignty, clarifying language be added to the management action to include "In collaboration with Tribal Nations, and subject to Tribal Government approval, document important sites, areas, and resources and keep confidential as appropriate. Subject to Tribal Government approval, the information would be incorporated into the planning system to identify conflicts in the early stages, to avoid conflicts whenever possible, and to support Native communities' interests in the Field Office. In collaboration with Tribal Nations, manage Tribal Cultural Sites to minimize disturbance to them and to ensure continued access." | Chapter 2.2.6 management actions 5200-5202(Sacred, Spiritual or other Traditional Cultural Properties) discusses the full range of alternatives considered in the EIS. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13865-60 | A.2.1. For resources that require multi-agency agreement such as cultural, no action should take place that is inconsistent with established BLM protocol in adjacent Field Offices with agencies such as SHPO, tribal consultation or NHT. Buffers on the trail should remain the same and consistent. VRM classifications should go through the evaluation process and be defined geographically in a manner that captures the intended protection clearly if there are proposed changes. The Green River formation is shared by four Field Offices and there would be no benefit in changing the stipulations for Paleontology and the management of fossil rich strata. | BLM is not proposing changes to the measures listed in A.2.1., only re-integrating established best management practices for important cultural resource and trail settings that are currently in use. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13878-1 | I do not believe the BLM has fulfilled the commitments made regarding these Tribal requests in the current RMP (Alternative A) and request that they be carried forward into the new RMP. On page 3-15 the draft RMP states: The Green River RMP and the JMH both identify Indian Gap and the Indian Gap Trail as a respected place for tribes. Both plans also state that Indian Gap and the associated Indian Gap Trail will be further researched. Subsequent research, including Tribal consultation and field visits from 1998 and 2003, revealed that two tribes identified the Gap as a historic resource. Oral history indicates that an historical Indian trail passed through the saddle between Steamboat Rim and Essex Mountain (Indian Gap). One tribal elder stated that the trail was used to bring coal from Rock Springs to the Wind River reservation perhaps as early as 1880s-1920s. A Tribal elder from a different tribe stated that the trail was used by their people while travelling between Fort Duchesne, Utah and Fort Washakie, Wyoming. The Elders mother said they would travel to either Rock Springs or Farson to buy supplies before continuing their journey. There are no existing physical remnants of the trail. | See Chapter 3.11 on page 3.14 discusses the Indian Gap Trail. A range of alternatives has been analyzed for the Indian Gap Trail in Chapter 2.2.6 management action 5201. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13878-2 | I want to point out that the BLM cannot claim, as it does in the RMP, that they have done this research based on consultations from 1996-2003 - before the JMH ROD was signed. That agency document, and the commitments it made, date from its formal passage in 2006. Thus, the agency has failed to subsequently conduct the research promised in the JMH ROD, for the Indian Gap Trail. There has been no report issued. I request that real and current day research occur. Specifically, I request that MA 5013 under Alternative A be included in the final RMP, and instead of requiring "an interpreted plan" be developed, that the agency report back to the two Tribes that requested this study in 2003. | See Chapter 3.11 on page 3.14 discusses the Indian Gap Trail. A range of alternatives has been analyzed for the Indian Gap Trail in Chapter 2.2.6 management action 5201. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13878-3 | Better Indigenous Site Protection The current RMP and the RMP draft commit to protection of important Indigenous sites (and this was also requested by the Tribes in 2003). I want, in this comment letter, to urge the agency to do a better job and be serious in their attention to this. For example, under the White Mt. Petroglyphs ACEC section in the draft RMP under MA 7531, in Alt. A it states: The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction or placement of barriers to ensure protection of the site. Public awareness and use of the area as an educational site are encouraged. This is stated as the same for Alternatives B and D. Yet I believe this language fails to really implement its stated goal for this section: SD-38: Protect cultural resource values from degradation. Instead, I suggest that the agency include language that states: The BLM will use fencing, interpretive signs, or construction or placement of barriers to ensure protection of the site, in consultation with Tribal authorities. | A range of alternatives has been analyzed for the White Mountain Petroglyphs in Chapter 2.2.6 management actions 7530 - 7537. A range of alternatives for Sacred, Spiritual and/or Traditional Cultural Properties was analyzed in Chapter 2.2.6 management actions 5100 - 5127. Analysis of impacts for actions in each alternative is found in Chapter 4. Implementation and preparation of site/project specific activity or development plans is beyond the scope of this document. |
| 822 - Heritage and Visual Resources–Sacred, | #13899-22 | The designation of archaeological and historic districts is a critical step toward preserving cultural heritage, especially when combined with Tribal consultation and co-stewardship. Therefore, we support Alternative B's management actions to manage areas with high cultural resource density, such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon, and the Bozovich site complex, as historic districts. We also support the designation of | Chapter 2.2.6 management actions #5200-5202 (Sacred, Spiritual or other Traditional Cultural Properties) discuss the full range of alternatives considered in the EIS. Analysis of impacts of actions in each alternative is found in Chapter 4. |

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| Spiritual and/or Traditional Cultural Properties (5200-5202) | | the West Sand Dunes Archaeological District as a portion of the Steamboat Mountain ACEC. We believe it is necessary to close these areas to surface-disturbing[...] activities that could harm cultural resources. In contrast, Alternative C would provide the least protection for cultural resources and would be detrimental to preserving Wyoming's history and prehistory. | |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #13913-3 | Update list of Tribal Nations for consultation We appreciate the steps BLM took in the past decade to engage and consult with Tribal Nations during the development of this draft RMP. We urge continued effort to engage with the Nations listed in the RMP and to expand that list and reach out to Nations who have yet to be engaged. The current list does not include all the Tribal Nations who have ancestral and migratory territories in the planning area and must be updated to be fully inclusive. Lastly, we urge the BLM to prioritize contacting the Tribal Historic Preservation Offices (THPOs) for these Tribal Nations, or the relevant cultural or heritage office, in acknowledgment of the authority vested in those offices by their respective governments and the unique role they play. We believe BLM should be consulting with: Eastern Shoshone THPO ? Northern Arapaho THPO ? Shoshone-Bannock HeTO (Heritage Tribal Office) ? Crow THPO ? Ute Indian Tribe of the Uintah and Ouray Reservation ? Southern Ute Indian Tribe ? Ute Mountain Ute Tribe ? Rocky Mountain Tribal Leaders Council These Tribal Nations also have ties to this landscape and the RSFO should solicit their input: ? Fort Belknap Indian Community ? Rosebud Sioux Tribe of Indians ? Cheyenne & Arapaho Tribes Comanche Nation ? Northern Cheyenne Tribe ? Lower Brule Sioux Tribe ? Kiowa Tribe | See Chapter 5.1.3 Native American Interests for a description of consultation activities, and Chapter 5.3 for a distribution list that includes interested Native American Tribes from when the process began. Updates have been incorporated as necessary. |
| 822 - Heritage and Visual Resources–Sacred, Spiritual and/or Traditional Cultural Properties (5200-5202) | #14023-9 | The Rock Springs District RMP should be driven by a conservation agenda, one that will conserve the best of the unique landscapes, habitats, and native biodiversity it sustains. The RMP should re?ect the District's place in the larger Wyoming landscape; its critical role in providing winter habitat for wildlife that summers tens, if not hundreds of miles to the north. It should also protect, and where and whenever possible enhance habitats for resident wildlife and native plants. It should evaluate, consider, and mitigate how energy development impacts air- and watersheds far removed from the district. It should recognize, respect, and protect the history and locations once utilized by our indigenous ancestors. | See the Executive Summary, and the Purpose and Need for a description o the reason for this document. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-1 | While SVP supports the requirements to maintain healthy air resources, issues concerning air resources are largely irrelevant from the paleontological standpoint, except where surface disturbances, that may impact paleontological resources at or near ground surfaces (if any) are involved. Therefore, SVP prefers Alterative A for MA# 1010 (Page 2-7) in light of the fact that how ground disturbances will be handled is not clear in Alternative B. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | A range of alternatives has been analyzed for mitigation for air quality impacts in Chapter 2.2.6 management action 1010. A range of alternatives has been analyzed for paleontological resources in Chapter 2.2.6 management actions 5300 - 5309. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-2 | Soil and Geologic Resources (Pages 2-9 through 2-13) Extraction of paleontological resources generally involves some level of ground-disturbing activities, but following an excavation, it is typical for the site to be restored and for any disturbance to be mitigated. Therefore, SVP prefers management alternatives that allow for some temporary soil disturbance and/or make exceptions for scientific research. Below are SVP's comments and preferences: * Because paleontological resources may occur in different settings, SVP prefers Alternative A for MA#s 1107 and 1108 (Page 2-10) where soil disturbance is avoided but not prohibited, allowing flexibility to conduct carefully managed surface disturbance activities, such as paleontological excavations. For example, important fossil localities may be located in areas with greater than 25% slopes; therefore, Alternative B which prohibits surface disturbances where slopes are greater than 25% is not preferred by SVP. * While SVP supports the requirement for a soil health and restoration plan, discoveries of paleontological resources generally take place where erosion of rocks takes place; therefore, for MA# 1112 (Page 2-11), Alternative C is adequate from a purely paleontological standpoint. * For all other MA#s with different alternatives, SVP is fine with Alternative B preferred by BLM. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | A range of alternatives for soil resources was analyzed in Chapter 2.2.6 in actions 1100-1116. A range of alternatives Paleontological resources was analyzed in actions 5300 - 5309. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-3 | Water Resources (Pages 2-13 through 2-22) While SVP supports the requirements to maintain healthy water resources, issues concerning water resources are largely irrelevant from the paleontological standpoint, except for alternatives that would have scenarios completely prohibiting surface disturbance activities. Alternative B of MA#s 1302, 1313, and 1325 (Pages 2-14, 2-16, and 2-22) are such examples SVP does not prefer. Alternative A for MA# 1302, Alternative C or D for MA# 1313, and Alternative D for MA# 1325 (= equivalent to Alternative D of MA# 1320: Page 2-20) would be more sensible from the paleontological standpoint (and thus preferred here) by providing flexibility (on a case-by-case basis or 'avoid' but not necessarily prohibit) to conduct carefully managed surface disturbing activities, such as paleontological surveys, mitigations, and excavations. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | Surface disturbances that may impact paleontological resources are addressed under management actions 5300 - 5309. Management for water resources is covered in all alternatives in actions 1300-1325. |
| 823 - Heritage and Visual Resources–Paleontological | #9853-4 | Lands with Wilderness Characteristics (Pages 2-22 through 2-25) While SVP supports the requirements to maintain lands with wilderness characteristics and particularly alternatives that would prohibit mineral explorations (e.g., Alternative B of MA# 1502), SVP finds most of the alternatives in this entire section (Pages 2-23 through 2-25) to be vague in relation to how the paleontological activities can be carried out. Because paleontological | A range of alternatives has been analyzed for Lands With Wilderness Characteristics in Chapter 2.2.6 management actions 1550-1517 and for Paleontological Resources in actions 5300-5309. |

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| Resources (5300-5309) | | resources commonly occur in such wilderness areas, having no management in those areas as suggested in Alternative C of MA#s 1501-1517 would be problematic. SVP prefers an alternative (e.g., Alternative D where 'Manage for multiple use' is noted) that would allow paleontological inventories/surveys, excavations, and mitigations, that may involve some degree of surface disturbances, on a case-by-case basis. SVP asks that any decision-making should be made in consultation with the bureau's own paleontologists in the region. | |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-5 | SVP prefers an alternative that would prohibit, or minimally strongly discourage or limit, any forms of mineral resource activities where very high potential for paleontological resources exists, particularly if areas of interest have the Potential Fossil Yield Classification (PFYC) rating of "4" or "5". For any lands of interest, no mineral activity permits should be issued prior to each mineral activity without proper paleontological surveys and any necessary excavations/mitigations by qualified paleontologists, including BLM paleontologists. While 'no mineral activities' is the most preferred option for SVP, we must note that an elaborate plan for best practices for mineral (including oil, gas, and coal) explorations at paleontologically sensitive sites must be in place if alternatives that allow such explorations are selected. We have attached below (Appendix 2) our generic paleontological resources management plan that pertains to energy and mineral activities, including oil and gas explorations. SVP hopes BLM will adopt the suggested best practices in Appendix 2 for the areas of concern in this present case (DOI-BLM-WY-D040-2011-0001-RMP-EIS) in consultation with the bureau's own paleontologists in the region. | See Chapters 3.15 and 4.11 for a description and analysis of mineral development within the planning area. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-6 | While SVP supports any necessary fire management plans (Pages 2-47 through 2-50), it should be noted that fire has the capacity to damage or destroy paleontological resources and sites. Therefore, if any prescribed fire (controlled burns) of lands need to be conducted, such lands should be expeditiously, but properly and adequately, surveyed for paleontological resources (and mitigated or excavated if necessary) by qualified paleontologists, including BLM paleontologists, prior to the burn. Forest and Woodlands (Pages 2-50 through 2-55) | A range of alternatives for paleontological resources has been analyzed in Chapter 2.2.6 management actions 5300 - 5309. A range of alternatives for Fire and Fuels Management has been analyzed in Chapter 2.2.6 management actions 3000-3013. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-8 | ains, trace, or imprint of a plant or animal that has been preserved in the Earth's crust since some past geologic or prehistoric time (AGI Glossary of Geology)" (Page GL-12). However, while it is somewhat contradictory for the definition of "Historic Properties" that reads "Any prehistoric or historic district, site, building, structure, or object…" (Page GL-14), if the word 'prehistoric' is used in the RMP, it should be explicit if it is used in the archaeological context, paleontological context, or both, in order to increase clarity. For example, all | See Glossary for a definition of 'prehistoric'. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-9 | For example, Alternative D of MA# 5302 states "No similar action (action required under existing law, regulation and policy)", which can be interpreted that paleontological sites would not be managed for their paleontological resources. Alternative D of MA# 5308 states: "Allow surface disturbing activities, on a case-by-case basis, in the Farson Fossil Fish Beds, subject to adequate mitigation of impacts following BLM mitigation policies." SVP points out that, not only this alternative would allow the scientifically significant fossil fish bed to be disturbed, but it also appears contradictory to the statement for the alternative in the sixth paragraph on Page 4-162 which reads: "Under Alternative D, management of paleontological resources would have impacts similar to Alternative A; however, additional management for the Farson Fossil Fish Beds could protect the paleontological site." SVP is uncertain how it (i.e., Alternative D of MA# 5308) could protect the fossil site by allowing surface disturbing activities. | MA 5302 Alt D specifically identifies that 'no similar action' is due to existing laws, regulations, policies. A range of alternatives has been analyzed for paleontological resources in Chapter 2.2.6 management actions 5300-5309. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-10 | * Alternative B of MA# 6504 states "other resource values" where SVP expects that these include paleontological resources. | Resource values includes paleontological resources. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-11 | * Alternative B of MA# 6505 states "Close areas to camping if resource damage occurs", but because paleontological resources are nonrenewable, detailed management plans must be in place to eliminate the possibility of damage to paleontological resources in such areas in the first place. | A range of alternatives has been analyzed for dispersed camping in Chapter 2.2.6 management action 6505 . See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #9853-12 | Alternative B of MA# 6516 states "Prohibit surface disturbing activities within three miles or the visual horizon, whichever is closer, of developed recreation sites unless such activities are determined to be compatible with or are done for meeting recreation objectives for the area." SVP hopes that paleontological surveys, mitigations, and excavations that will likely cause some degree of surface disturbance to be allowed. | A range of alternatives regarding surface disturbing activities and recreation has been analyzed in chapter 2.2.6 management action 6516. Analysis for impacts of actions in each alternative is found in chapter 4. |
| 823 - Heritage and Visual | #13751-142 | MA #5302 ALT A B C Industry Position: Not Acceptable Reasoning: 43 CFR 3600 is regarding mineral material sales and does not reference paleontological resources. 43 CFR 3622.3(a) states "All public lands administered by | See Chapter 1.4 Planning Criteria for compliance with applicable laws. |

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| Resources–Paleontological Resources (5300-5309) | | the Bureau of Land Management and the Bureau of Reclamation are open to or available for free use removal of petrified wood unless otherwise provided for by notice..." and 43 CFR 8365.1-5(b)(6) "Common invertebrate and plant paleontological resources as provided under part 49 of this title." 43 CFR 49.805(a) states "Casual collecting of common invertebrate or plant paleontological resources is allowed on lands administered by BLM, except on BLM- administered land that is closed to casual collecting in accordance with this part, other statutes, executive orders, regulations, proclamations, or land use plans." There are no scientific or educational values outlined in these referenced citations and BLM must not induce land use plan restrictions without authority to do so. | |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13751-143 | MA #5304 ALT A D Industry Position: Not Acceptable Reasoning: Management is not limited to vertebrate fossils. Management of fossilized wood should be managed according to 43 CFR 3622. | Please refer to all proposed alternatives under #5304, which reference petrified wood. A range of alternatives has been analyzed for surface disturbing activities and paleontological resources in Chapter 2.2.6 management action 5304. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13784-31 | * MA#5305, Alt. B: "Prohibit surface disturbing activities in Adobe Town and Desolation Flat/Desolation Point Areas." Comment: It remains unclear of all activities considered and prohibited as a surface disturbing activity. The total number of prohibited acres from surface disturbing activities when compiled is incredibly high and will undoubtedly cause harm to the industries using the project area and those employed in the local communities. | See Glossary for a definition of 'surface disturbance' and 'surface disturbing activities'. A range of alternatives has been analyzed for paleontological resources in Adobe Town and Desolation Flat/Point areas in Chapter 2.2.6 action 5305 Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13787-68 | MA #5302 HR-17, HR-23 Significant paleontological resources would be managed for their scientific and educational values and in accordance with 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365. Industry Position: Not acceptable Reasoning: 43 CFR 3600 is regarding mineral material sales and does not reference paleontological resources. 43 CFR 3622.3(a) states "All public lands administered by the Bureau of Land Management and the Bureau of Reclamation are open to or available for free use removal of petrified wood unless otherwise provided for by notice..." and 43 CFR 8365.1-5(b)(6) "Common invertebrate and plant paleontological resources as provided under part 49 of this title." 43 CFR 49.805(a) states "Casual collecting of common invertebrate or plant paleontological resources is allowed on lands administered by BLM, except on BLM- administered land that is closed to casual collecting in accordance with this part, other statutes, executive orders, regulations, proclamations, or land use plans." There are no scientific or educational values outlined in these referenced citations and BLM must not induce land use plan restrictions without authority to do so. Manage significant paleontological resources for their scientific and educational values and in accordance with 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365, and other applicable laws and regulations. Industry Position: Not acceptable Reasoning: 43 CFR 3600 is regarding mineral material sales and does not reference paleontological resources. 43 CFR 3622.3(a) states "All public lands administered by the Bureau of Land Management and the Bureau of Reclamation are open to or available for free use removal of petrified wood unless otherwise provided for by notice..." and 43 CFR 8365.1-5(b)(6) "Common invertebrate and plant paleontological resources as provided under part 49 of this title." 43 CFR 49.805(a) states "Casual collecting of common invertebrate or plant paleontological resources is allowed on lands administered by BLM, except on BLM- administered land that is closed to casual collecting in accordance with this part, other statutes, executive orders, regulations, proclamations, or land use plans." There are no scientific or educational values outlined in these referenced citations and BLM must not induce land use plan restrictions without authority to do so. Same as Alternative A Industry Position: Not acceptable Reasoning: 443 CFR 3600 is regarding mineral material sales and does not reference paleontological resources. 43 CFR 3622.3(a) states "All public lands administered by the Bureau of Land Management and the Bureau of Reclamation are open to or available for free use removal of petrified wood unless otherwise provided for by notice..." and 43 CFR 8365.1-5(b)(6) "Common invertebrate and plant paleontological resources as provided under part 49 of this title." 43 CFR 49.805(a) states "Casual collecting of common invertebrate or plant paleontological resources is allowed on lands administered by BLM, except on BLM- administered land that is closed to casual collecting in accordance with this part, other statutes, executive orders, regulations, proclamations, or land use plans." There are no scientific or educational values outlined in these referenced citations and BLM must not induce land use plan restrictions without authority to do so. No similar action (action required under existing law, regulation and policy) Industry Position: Acceptable Reasoning: Management must follow existing laws, regulations and policy. Alternative D is acceptable. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See also Appendix E. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13787-69 | MA #5304 HR-17, HR-23 Surface disturbing activities that affect known vertebrate fossil localities would be considered in site-specific analyses and potential adverse effects would be mitigated. At the area manager's discretion, mitigating measures may be required for surface disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Operators are required to report any paleontological resources discovered during the course of operations. Industry Position: Acceptable Reasoning: Management properly limited to vertebrate and significant fossils. It would also be prudent to define "significant." Consider surface disturbing activities that affect known significant paleontological resource localities after site-specific analyses and potential adverse effects are mitigated. The AO may require mitigating measures for surface | A range of alternatives has been analyzed for surface disturbing activities and paleontological resources in Chapter 2.2.6 management action 5304. Analysis of impacts for actions in each alternative is found in Chapter 4. See Planning criteria for compliance with applicable laws. |

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| | | disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Require operators to report any paleontological resources discovered during the course of operations. Industry Position: Not acceptable Reasoning: Management is not limited to vertebrate fossils. Management of fossilized wood should be managed according to 43 CFR 3622. Same as Alternative A Industry Position: Acceptable Reasoning: Management properly limited to vertebrate and significant fossils. It would also be prudent to define "significant." Allow surface disturbing activities that affect known significant paleontological resource localities after site-specific analyses and potential adverse effects are mitigated. The AO may require mitigating measures for surface disturbing activities affecting known localities of scientifically significant fossils. Require operators to report any paleontological resources discovered during the course of operations. Industry Position: Not acceptable Reasoning: Management is not limited to vertebrate fossils. Management of fossilized wood should be managed according to 43 CFR 3622. Alternative A and C are acceptable. | |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13826-9 | BLM Goals and objectives: * HR-2.1: Develop activity plans or project/site-specific treatment plans or other protective measures for significant cultural resources at risk from deterioration or adverse effects from other uses. * HR-17: Manage, preserve, and protect paleontological resources and areas on BLM- administered land in the planning area. * HR-18: Reduce threats to paleontological resources from natural or human-caused deterioration. * HR-19: Promote and enhance scientific and educational knowledge of paleontological resources in the planning area. * HR-20: Provide paleontological research opportunities for qualified scientists/academia on public lands within the planning area in conjunction with the Wyoming State Office Paleontologist, implementing the paleontology-permitting program. My Comment: If there is a concern that these sites are in danger than involve the public in stewardship programs and install a permit program that would encourage public responsibility or accountability for the respect of sites when visiting them and if needed open them on schedules so they can be monitored by BLM Staff. | The BLM already has a permitting program for the collection of paleontological resources. The goals and objectives identified in the EIS are for the planning area resources. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13865-34 | 8. Paleontological Resources Paleontological resources have established protocols to identify and protect significant surface exposures. Known areas that have been traditionally exploited for petrified wood should be managed in a way to better protect buried resources without restricting travel or closing areas to ROWS or other development. The paleontology in the RSFO is part of the Green River Formation that is also shared by the Casper, Rawlins, Kemmerer and Little Snake BLM Field Offices, in both Wyoming and Colorado. Any deviation of established protocols in this Formation would be problematic for state paleontologists as well as for linear projects that span across multiple field offices. Consequently, PacifiCorp recommends that the BLM maintain current practices and adopt Alternative A for Paleontological Resources (MA #5300- 5309). | A range of alternatives has been analyzed for paleontological resources in Chapter 2.2.6 management actions 5300-5309. Analysis of impacts for actions in each of the alternatives is found in Chapter 4. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13865-60 | A.2.1. For resources that require multi-agency agreement such as cultural, no action should take place that is inconsistent with established BLM protocol in adjacent Field Offices with agencies such as SHPO, tribal consultation or NHT. Buffers on the trail should remain the same and consistent. VRM classifications should go through the evaluation process and be defined geographically in a manner that captures the intended protection clearly if there are proposed changes. The Green River formation is shared by four Field Offices and there would be no benefit in changing the stipulations for Paleontology and the management of fossil rich strata. | A full range of alternatives has been proposed for both paleontology and cultural management actions. Impacts from each alternative can be found in Chapter 4. |
| 823 - Heritage and Visual Resources–Paleontological Resources (5300-5309) | #13912-14 | Draft RMP, Map 2-18, Map 3-16, Appx C-64. BLM offers no explanation for this misalignment. And without an explanation, no interested party can adequately assess or comment on the difference. And if the rationale for VRM class II designation is simply that the area is an ACEC, BLM has failed to meet FLPMA's requirements. Draft RMP, 4-147. Under FLPMA, BLM must properly determine the range for both the size and prescription type of each ACEC. If some portion of or the entirety of an ACEC is not founded on a visual resource, BLM cannot implement visual restrictions in those ACEC areas on the basis of special management of the ACEC. Because BLM both fails to explain why it deviated from the VRI class III designations and has, perhaps, simply used a blanket VRM class II designation for the entire ACEC, the proposed RMP fails FLPMA and its required processes. | A full range of alternatives is proposed for each of the ACECs, including management actions related to visual resource management for each. The impacts from each of the four alternatives can be found in Chapter 4. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #537-1 | In ACEC's with a VRM of a Class 2 - standard wire fences cannot be built. Only electric fences can be installed. Electric fences are very hazardous for sage grouse since they cannot seem to see them. With this type of hazard for sage grouse, electric fences will also not be built in a VRM Class 2. This is poor planning on the part of the BLM as it doesn't allow for the management of livestock and is therefore all ACES's in a Class 2 are unfeasible because they are too restrictive. | See Glossary definition for 'Visual Resource Management Classes' - 'Class II' in the DEIS. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #7196-4 | I saw no mention in the draft of any Dark Sky guidelines. There are many areas of the Rock Springs District that still maintain an abundance of this rapidly dwindling resource. Given that there will inevitably be growth and industrial development across the planning area, guidance should be included in any project for how to minimize light pollution. | See Updates to DEIS Volume II, Appendix A.2 Best Management Practices, section A.2.7 for recommendations regarding facility lighting. |
| 824 - Heritage and Visual Resources– | #9354-7 | 6528 VMR class within 15 miles of each side of continental divide. If we have 15 miles of either side of the trails and historical markers that is a lot of area, and we need wells, and fences and other VRM's. | See DEIS Chapter 2.2.6 Section Land Resources - Recreation, Management Actions 6527 and 6528 for a full range of alternatives regarding the designation of Visual Resource Management Classes surrounding the |

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| Visual Resources (5400-5413) | | | Continental Divide National Scenic Trail. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13210-14 | 14. Understanding that Visual Resource Management mapping is a direct result of the special designation and management areas within each alternative, it is difficult to take a position on VRMs without taking a position on the underlying special designations, and particularly the areas of critical environmental concern. The task force recognizes that identifying a given management action within the VRM alternatives would remain unresolved without being able to specifically reference and agree upon each corresponding designation as referenced. a. Within the checkerboard, the Task Force supports removing VRM class II designation where it is driven solely by the visual resource inventory (Draft RMP Map 3-16). | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13287-16 | "the petitioner has proven that Area A deserves the very rare or uncommon designation due to its historical, geological, wildlife and scenic values. The area includes The Haystacks region and is beyond rare or uncommon." Very Rare or Uncommon Designation at 18. Black Rock is a volcanic butte that falls entirely within the checkerboard, and is an important scenic landmark that deserves visual resource conservation. Delaney Rim is characterized by banded red sediments and badlands all along its northern front, and is a scenic wonder and deserves maximum protection. The Kinney Rim extends northward into the checkerboard, is part of a citizens' proposed wilderness, and deserves Class I protection. The areas around Aspen Mountain is popular for recreation and deserves at least Class II scenic conservation. The Point of Rocks - South Pass Road and the Overland Trail each cross substantial portions of the checkerboard, and the viewsheds of each should receive Class I designation in order to fulfill the NHPA directive to protect not just the historic feature, but also its setting. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13542-6 | Section 1.1. 1-1 Table 1-1 VRM acreages do not match Table 4.8. | See updates to DEIS Volume I Table 4-8 for correction. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13579-1 | In regard to MA #5400 Alternatives B and D. Where is the justification for the change of class for a majority of the area to a class II? BLM Manual 8410 Section 6(A)(1) states that "The Bureau shall prepare and maintain on a continuing basis an inventory of visual values on all public lands." There is a reference to the 2011 inventory in Section 4.15.2 (page 4-167). however, the reference is not included in the Literature Cited section or on ePlanning. Per Instruction Memorandum No. 2012-055 states that "Efforts to inventory and record visual values for the Bureau's lands must utilize the VRI data standard found in the attachments of this IM. All offices must use these standards when inventorying, recording, amending, or maintaining electronic VRI data sets." | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. The Visual Resource Inventory is a part of the Administrative Record and is available at the Rock Springs Field Office. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13585-39 | Finally, the BLM's conclusion that impact to livestock grazing would not change between Alternative A and Alternative Bis false. See DEIS at 4-178, 4-259. Many of the ACEC's have a no surface occupancy "NSO" designation and this will impact permitted livestock owners' ability to drill for water wells within their grazing allotments. See DEIS at Append. V-4 - V-7. In addition, VRM Class II designations, ROW exclusions, and prohibition of surface disturbing activities within an ACEC would impact the ability of permittees to develop range improvements, such as fences, wells, or other water developments. See id. At 2-210 (Mgmt. Action #7556), 4-179. Some of the proposed ACECs also call for closure of grazing allotments and/or prohibition of grazing within certain pastures. See id. At 2-181 (Mgmt. Action #7433), 2-182 (Mgmt. Action #7438), 2- 184 (Mgmt. Action #7443). | See DEIS Volume I Glossary definition for 'No Surface Occupancy (NSO). See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13585-40 | III. BLM's Visual Resource Management Classifications Fail to Adequately Consider the Underlying Resource Allocations The BLM has proposed over 2.1 million acres for designation as Visual Resource Management ("VRM") Class II under the Preferred Alternative B. DEIS at ES-3, Appendix V-22. Even under Alternative D, the BLM is doubling the amount of VRM Class II designations from the Green River RMP - expanding it to include over 1.178 million acres. Id. As with other resources, values, and designations, both of these proposed alternatives fail to appropriately take into consideration the underlying resource allocations that were already made under the Green River RMP and that are being proposed under this current RMP revision. The Coalition has commented extensively on this issue over the last decade and the County supports and incorporates these previous comments. Sweetwater County has previously supported some VRM Class II designations (i.e. around Little Mountain) but has never agreed to such a large swath ofland to be excluded from development. According to the BLM's own policy, "the approved VRM objectives shall result from, and conform with, the resource allocation decisions made in the RMP's." BLM Manual 8400, Section 06.A.2 (Apr. 5, 1984); see also id. at Section 07.A. In referencing the provision of this BLM Manual, the Interior Board of Land Appeals ("IBLA") stated: "[i]t seems clear from the foregoing that what the Manual intends is for the resource allocation decisions to determine the VRM classification." Southern Utah Wilderness Alliance, 144 IBLA 70, 84 (1998) (explaining that VRM classifications must be made consistent with oil and gas leasing decisions and any stipulations provided in the RMP). The BLM cannot enforce VRM Classes when they conflict with the underlying resource allocation. Id. at 85-87. In addition, the management decision in the RMP must reflect the value of the visual resources, which are driven by | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |

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| | | information provided in the visual resource inventories ("VRJ"). BLM Handbook 8410-1, Section V.1 - V.2 (Jan. 17, 1986). | |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13585-41 | When you compare Map 3-8 that shows existing federal oil and gas leases to Map 2-18 (Alt. B) and Map 2-20 (Alt. D), it shows that the BLM has designated VRM Class II management in areas with existing resource allocations made under the Green River RMP. Under IBLA's holding, the VRM Class II would be largely invalid and unenforceable across the planning area. Under VRM Class II, the objective is "to retain the existing character of the landscape" and "[m]anagement activities may be seen but should not attract the attention of the casual observer." BLM Handbook 8410-1, Section V.B.2. This would prevent resource development, a fact that the BLM recognizes. See DEIS at 4-136 ("The large increase in VRM Class II acreage ... would greatly increase the impacts of visual resource management on mineral development activities."), 4-223 ("More acreage managed under the lower VRM classifications ... would place greater limitations to renewable energy development projects, by restricting the availability and access of development sites and the site clearing/preparation/construction activities ... necessary for the generation, collection, and transport of the energy."). | This RMP is a revision of and will replace the existing 1997 Green River RMP. See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13585-42 | The BLM must reevaluate and revise the VRM Class II designations to exclude those areas under existing mineral leases under the Green River RMP. These revisions should be made based on an updated inventory of the visual values in the planning area. Sweetwater County requests that like Management Action #5400 for Alternatives A and C, the VRM Class I and II designations should be limited to the boundaries of those proposed special designations without expansion into other areas such as five miles on either side of a historic trail or within the Checkerboard. See DEIS at 2-106, Maps 2-17 and 2-19. These revisions should also be done in coordination with the cooperators, who have long expressed their concern for the VRM Class II designations proposed in the DEIS. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13585-55 | In addition, Preferred Alternative B's proposed ROW exclusion areas fall within the Checkerboard. DEIS at Map 2-22. Sweetwater County objects to designating any ROW exclusion areas within the Checkerboard due to the impact it will have on the alternating sections of private lands and state lands. ROW exclusion areas infringe on private property rights by preventing the ability to access the private and state lands and to develop them when infrastructure (i.e. roads, pipelines, electric lines, etc.) cannot be placed on the neighboring public lands. This raises the question of whether the ROW exclusion, in addition to other restrictions such as VRM Class II, within the Checkerboard would result in the taking or partial taking of private property. See North Mill Street, LLC v. City of Aspen, 6 F.4th 1216, 1224 (10th Cir. 2021) (When regulations "deprive an owner of 'all economically beneficial use' of her property' it will be recognized as a taking." (quoting Lingle v Chevron US.A., Inc., 544 U.S. 528,537 (2005)). | See DEIS Section 1.4 for the Planning Criteria, including information about private lands. DEIS Chapter 2.2.6 section Land Resources - Rights-of-Way and Corridors, Management Actions 6200-6210, as well as Maps 2-22, 2-23, 2-24 for a full range of alternatives regarding Right-of-Ways. See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13624-38 | WDEQ understands VRM Class I and VRM Class II to restrict most surface development or the construction of surface features such as roads or pipelines and VRM Class III also appears to limit certain types of activities. BLM should provide examples of restrictions that would occur in those areas and analyze the impacts of those designations. The Draft RMP/EIS depicts areas with potential for development of non-energy mineral leases, coal leases, known sodium lease areas, oil shale potential and coal development potential. Draft RMP/EIS, Map 3-10: Leasable Solid Minerals. When comparing Map 3-10 with Map 2-18 (provided in the Draft RMP/EIS), it appears that many of the areas identified as having leasable solid mineral opportunities are significantly impacted by restrictions related to visibility resource management. For example, Map 2-18 identifies several areas within the KSLA that could be subject to visibility resource management restrictions. Visibility resource management restrictions when added to other management restrictions including, but not limited to wilderness study areas, right-of way exclusions, or potential wild and scenic restrictions, are likely to significantly impact the quantity of available lands within the KSLA. The Draft RMP/EIS states that 49,224 acres would be closed in the KSLA. Draft RMP/EIS, p. 4-135. Considering the potential management restrictions proposed within the KSLA, including visual resource management. BLM should provide additional information and analysis to identify the total acres that would be closed within the KSLA. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13651-27 | BLM should specify the VRM Class of each National Register and National Register property. Apply this specifically to the South Pass Historic Landscape, Rock Art Sites, Playa Sites, Archeological and Historic Districts and all ACECs designated for archeological and historic values. Our comment here reemphasizes that the relationship of these types of properties listed or eligible for inclusion in the NRHP must have integrity of setting. It follows that specific identification of the quality and character of setting is a necessary component of any consideration of eligibility. The Management Action 5402 that designates "Greater Sand Dunes ACEC, South Pass Historic Landscape ACEC, and White Mountain Petroglyphs ACEC would be managed as VRM Class II areas" should extend to the setting of all existing and identified National Register and National Register eligible sites and districts in the RMP Planning Area. | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual | #13651-28 | The MA# 5410 in Alternative B should be applied more broadly to all alternatives where settings of National Register and National Register eligible sites might experience damage through the direct and indirect impacts of land use: "Prohibit, on a case-by-case basis, surface-disturbing activities that create a moderate to strong contrast (via the visual contrast rating system) in areas managed consistent with VRM Class III and IV objectives that can be observed from areas managed consistent with VRM Class I and II (e.g., wind development)." | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |

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| Resources (5400-5413) | | | |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13702-10 | Visual Resource Management is being changed from Class III and IV to Class II in MA 5400 Alternatives B and D. The BLM cannot justify changing the VRM class for the majority of the area from Class III and IV to Class II without completing an updated VRI. BLM Manual 8410 Section 6(A)(1) states that "The Bureau shall prepare and maintain on a continuing basis an inventory of visual values on all public lands." Why is the 2011 inventory not being used? There is a reference to the 2011 inventory in Section 4.15.2 (page 4-167). However, the reference is not included in the Literature Cited section and is not included on ePlanning. In addition, Instruction Memorandum No. 2012-055 states that "Efforts to inventory and record visual values for the Bureau's lands must utilize the VRI data standard found in the attachments of this IM. All offices must use these standards when inventorying, recording, amending, or maintaining electronic VRI data sets." | See DEIS Map 3-16 for the VRI. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-86 | Visual Resources: For MA #5400 Alternatives B and D, how can the BLM justify changing the VRM class for the majority of the area from Class III and IV to Class II without completing an updated VRI? BLM Manual 8410 Section 6(A)(1) states that "The Bureau shall prepare and maintain on a continuing basis an inventory of visual values on all public lands." Why is the 2011 inventory not being used? There is a reference to the 2011 inventory in Section 4.15.2 (page 4-167). However, the reference is not included in the Literature Cited section and is not included on ePlanning. | See DEIS Map 3-16 for the VRI. See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-144 | MA #5400 B C D Industry Position: Not Acceptable Reason: The VRM classifications shown in Table 2-9, Appendix V and Map 2-18 are not based on visual resource inventories and would limit activities that would disrupt the viewshed. | See DEIS Map 3-16 for the VRI. See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-145 | MA #5405 ALT B Industry Position: Not Acceptable Reason: The VRM on the checkerboard lands must take into account current and future uses of the private lands within the checkerboard. ALT C Industry Position: Not Acceptable Reason: VRM classification and management should be based on the results of visual resource inventories. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-146 | MA #5408 ALT B C D Industry Position: Not Acceptable. Reason: Management Action 5407 is related to surface disturbing actions. | See Glossary definition for 'Visual Resource Management Classes' in the DEIS. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-147 | MA #5409 ALT B C D Industry Position: Not Acceptable. Reason: Management Action 5407 is related to surface disturbing actions. | See Glossary definition for 'Visual Resource Management Classes' in the DEIS. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-148 | MA #5411 ALT B Industry Position: Not Acceptable Reason: This management action does not take into consideration distances from VR Class I and II areas. Some projects may be visible for several miles in areas of flat terrain. Mitigation may be necessary so activities should not be prohibited. Wind development is more than a surface disturbing activity. ALT C D Industry Position: Not Acceptable Reason: This management action does not take into consideration distances from VR Class I and II areas. Some project may be visible for several miles in areas of flat terrain. | See DEIS Chapter 2.2.6 Section Heritage and visual Resources - Visual Resources, management Action 5411 for a full range of alternatives analyzed in regards to surface disturbing activities within viewsheds of VRM I and II areas. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13751-149 | MA #5412 ALT B Industry position: Not acceptable. Reason: BLM Manual 8431 states that "Simulations are strongly recommended for potentially high impact projects." ALT D Industry position: Not acceptable. Reason: BLM Manual 8400 does not describe when visual simulations are required. BLM Policy 8431 states that "Simulations are strongly recommended for potentially high impact projects." | See Update to DEIS Chapter 2.2.6 Section Heritage and Visual Resources - Visual Resources, Management Action 5412 Alternative D, where text has been updated. |
| 824 - Heritage and Visual Resources–Visual | #13779-13 | The proposed alternative visual resource management (VRM) classifications will severely hinder, if not completely prevent renewable energy and transmission development. Under the proposed alternative approximately 225,785 acres would be classified as VRM Class I and 2,148,902 acres would be classified as VRM Class II. Combined this is an increase of 1.6 million acres classified as I or II. In contrast to lands designated as Class III or Class IV, which allow for development, Class II lands require that any activity "retain the existing character of the landscape." | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |

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| Resources (5400-5413) | | Change to the land is allowed only to the extent that it does not "attract the attention of a casual observer." Clearly wind farms and transmission lines would not meet this objective. | |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13779-14 | wind will not only be prohibited on VRM Class I and II, but BLM notes that it will "[P]rohibit, on a case-by-case basis, surface-disturbing activities that create a moderate to strong contrast (via the visual contrast rating system) in areas managed consistent with VRM Class III and IV objectives that can be observed from areas managed consistent with VRM Class I and II (e.g., wind development)." In other words, if Class III or IV lands can be seen from Class I or II development will be precluded on these lands. Of note these classifications appear to specifically target renewable energy development due to the higher visual profile of wind energy and transmission infrastructure. | See DEIS Chapter 2.2.6 Section Heritage and visual Resources - Visual Resources, management Action 5411 for a full range of alternatives analyzed in regards to surface disturbing activities within viewsheds of VRM I and II areas. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-20 | Proposed Visual Resource Management Areas Based on Historic Trails and ACECs Are Unsupported. BLM fails to defend its visual resource management ("VRM") classifications for two reasons. First, BLM omitted the visual resource inventory ("VRI") analysis which is one of two sources from which BLM develops it VRM classifications. Second, BLM flouts both the VRM categorization and ACEC designation processes to issue blanket VRM Class II restrictions. One blanket restriction covers a 15-mile radius of every cross point of a National Historical Trail and Expansion Era Trail which include the Cherokee and Overland Trails. Another blanket restriction covers almost every ACEC within the Rock Springs area. | See DEIS Map 3-16 for the VRI. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-21 | BLM Did Not Provide Analysis for Its VRI Finding. BLM omits the VRI analysis from the record and in doing so fails to defend its VRM classifications. In the RMP planning process, BLM is required to conduct a VRI assessment which arrives at "classifications [] based on scenic quality, visual sensitivity levels, and viewer distance zones." BLM VRM Manual H-8410-1 V.A.1. | See DEIS Map 3-16 for the VRI. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-22 | The RMP does not disclose the VRI analysis which deprives interested parties of the information necessary to submit useful comments. The RMP merely acknowledges that BLM conducted the VRI analysis in 2011 and claims that BLM considered the VRI classes "along with BLM's allocated resources" to arrive at the VRM classifications. Draft EIS 3-17. The VRI process requires extensive analysis and documentation. See generally Manual H-8410-1. But the RMP declines to present that analysis and documentation to support its VRI map or VRM decisions. It offers no information on which areas fell into which zones and how they were rated for their scenic qualities and visual sensitivity. Without the information, no interested party can properly analyze and comment on BLM's designation of visual resource management areas. | See DEIS Map 3-16 for the VRI. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-23 | BLM Applies Blanket VRM Class II Designations Which Contravenes the Purpose of FLPMA. Ignoring site specific considerations which form the core of VRM and ACEC analysis, BLM vastly expands the areas subject to Class II designations under Alternative B. This includes VRM Class II designations (which generally include NSO restrictions) within 15 miles of National Historic Trails ("NHTs") and Expansion Era trails as well as almost all of each Rock Springs ACEC. VRM classes should be identified based on individualized consideration of each area and its features, not as blanket management restrictions. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-24 | BLM mandates a 15-mile VRM Class II designation for all NHT and Expansion Era Trails which inherently ignores the purpose of VRI and VRM class designations and is incredibly restrictive on new development in the area. Draft EIS at 2-144. While a background zone can extend approximately 15 miles from a trail, it must be limited by the seldom-seen zone which includes areas that are not visible within the background zone. Manual H-8410-1 IV.A.3. With near certainty, every point on every trail within the RMP cannot have a 15-mile viewshed. Surely trees, hills, mountains, or other obstructions create Seldom-Seen Zones. So the VRM 15- mile Class II mandate should exclude non-existent viewsheds within the radius. Given the VRM Class II objective "to retain the existing character of the landscape," extending the classification to areas outside the viewshed is entirely unnecessary to meet the Class II objective. Manual H- 8410-1 V.B.2. When BLM asserts a Class II designation without a visual resource or its visible surroundings to support the designation, it undermines the purpose of VRI and VRM class designations and ultimately FLPMA. | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-25 | BLM goes much further still and requires almost the entirety of all ACECs to follow VRM Class II objectives "to provide greater protections against surface disturbance." Draft EIS 4-147. Surface disturbance matters in the visual resource context only to the extent that it could cause damage to the visual resource or its viewshed. And it cannot possibly be true that every inch of every ACEC is a sensitive visual resource or within its viewshed. True, ACECs do provide BLM discretion to depart from VRI findings (which, again, BLM has not disclosed), but FLPMA still requires BLM to properly scope each ACEC in both size and prescription types. | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources– Visual | #13783-26 | Manual H-8410-1 V.A.2; BLM ACEC Manual 1613.12. Recall, resources considered under FLPMA have "been subdivided into subcategories to pinpoint the basic values of the land involved so as to better provide opportunities for development which can demonstrate its compatibility with such values." S. Rep. 95-734 O, at 128 (1973). So only ACECs designated specifically to protect visual resources can command visual restrictions. And if ACECs or | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each |

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| Resources (5400-5413) | | portions of ACECs are not based on the existence or protection of visual resources, BLM cannot implement visual restrictions for those ACECs or portions thereof. But once again, BLM runs afoul of FLPMA by doing so anyway. | class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13783-27 | The RMP fails to validate its VRI classifications which, in turn, means that the RMP fails to validate its VRM classifications as well. VRIs, after all, "provide the basis for considering visual values in the RMP process." Manual H-8410-1 V.A.1. Without the basis that the VRI classifications provide, the VRM findings cannot be defended, nor can any interested party make any useful comments. BLM also disregards the purpose of both VRMs and ACECs when it sets the 15-mile Class II mandate from Expansion Era Trails and Class II mandate for almost all of the ACECs. Until BLM shows that it has made individualized decisions based on each specific visual resource, it has failed to properly complete its duties under FLPMA. | See DEIS Map 3-16 for the VRI. See Chapter 1.4 Planning Criteria for compliance with applicable laws and policies. See Executive Summary and Chapter 4.2. 2 for adequacy of data and analysis. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13787-22 | Resource: Heritage and Visual Resources (HR) - Visual Resources (5400-5413) MA #5400 - For Alternatives B and D, how can the BLM justify changing the VRM class for the majority of the area from Class III and IV to Class II without completing an updated VRI? BLM Manual 8410 Section 6(A)(1) states that "The Bureau shall prepare and maintain on a continuing basis an inventory of visual values on all public lands." Why is the 2011 inventory not being used? There is a reference to the 2011 inventory in Section 4.15.2 (page 4-167). However, the reference is not included in the Literature Cited section and is not included on ePlanning. In addition, Instruction Memorandum No. 2012-055 states that "Efforts to inventory and record visual values for the Bureau's lands must utilize the VRI data standard found in the attachments of this IM. All offices must use these standards when inventorying, recording, amending, or maintaining electronic VRI data sets." | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Map 3-16 for the VRI. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13787-70 | MA #5400 HR-02, HR-11, HR-04 Visual resource classes would be retained or modified to enhance other resource objectives such as those for cultural resource and recreation management, wild horse viewing, and special management areas. The visual resource management classifications are shown in Table 2-9, Appendix V and Map 2-17. Industry Position: Acceptable Note: Although DEIS Page 4-167 states "the VRI [2009/2011 Published in February 2011] is the basis of the VRM actions" the VRM's do not match the VRI. The VRI should be included as an appendix to the DEIS for evaluation. The study was never widely available to the public and still can't be found on-line. It should also be noted that 2009/2011 information is also outdated. Designate VRM classifications as shown in Table 2-9, Appendix V and Map 2-18. Industry Position: Not acceptable Reason: The VRM classifications shown in Table 2-9, Appendix V and Map 2-18 are not based on visual resource inventories and would limit activities that would disrupt the viewshed. Designate VRM classifications as shown in Table 2-9, Appendix V and Map 2-19. Industry Position: Not acceptable Reason: The VRM classifications shown in Table 2-9, Appendix V and Map 2-19 are not based on visual resource inventories and are not consistent with the current VRM (Map 2- 17). Designate VRM classes as shown in Table 2-9, Appendix V and Map 2- 20. Industry Position: Not acceptable Reason: The VRM classifications shown in Table 2-9, Appendix V and Map 2-20 are not based on visual resource inventories and would convert several currently Class IV areas to Class II and III, which would limit activities that would disrupt the viewshed. Visual resource classes would be retained or modified to enhance other resource objectives such as those for cultural resource and recreation management, wild horse viewing, and special management areas. A Visual Resource Inventory shall be required for all activities on public lands and management objectives should adhere to the determined classification. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Map 3-16 for the VRI. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13787-71 | MA #5405 HR-02, HR-11, HR-04 No similar action Determine visual resource management of checkerboard lands by the Visual Resource Inventory. Industry Position: Not acceptable Reason: The VRM on the checkerboard lands must take into account current and future uses of the private lands within the checkerboard. Manage all lands within the checkerboard consistent with VRM Class IV objectives. Industry Position: Not acceptable Reason: VRM classification and management should be based on the results of visual resource inventories. See MA #5400 Industry Position: Not acceptable Reason: See reason from MA #5400 See MA #5400 | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources– Visual Resources (5400-5413) | #13787-72 | MA #5411 HR-02, HR-11, HR-04 No similar action Prohibit, on a case-by-case basis, surface- disturbing activities that create a moderate to strong contrast (via the visual contrast rating system) in areas managed consistent with VRM Class III and IV objectives that can be observed from areas managed consistent with VRM Class I and II (e.g., wind development). Industry Position: Not acceptable Reason: This management action does not take into consideration distances from VR Class I and II areas. Some projects may be visible for several miles in areas of flat terrain. Mitigation may be necessary so activities should not be prohibited. Wind development is more than a surface disturbing activity. Allow surface-disturbing activities in areas managed consistent with VRM Class III and IV objectives that can be observed from areas managed consistent with VRM Class I and II, regardless of the degree of visual contrast. Industry Position: Not acceptable Reason: This management action does not take into consideration distances from VR Class I and II areas. Some projects may be visible for several miles in areas of flat terrain. Prohibit, on a case-by-case basis, surface disturbing activities that create a strong contrast (via the visual contrast rating system) that can be observed in areas managed consistent with VRM Class I and II. Industry Position: Not acceptable Reason: This management action does not take into consideration distances from VR Class I and II areas. Some projects may be visible for several miles in areas of flat terrain. Evaluate, on a case-by-case basis, surface disturbing activities that create a strong contrast (via the visual contrast rating system) that can | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |

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| | | be observed in areas managed consistent with VRM Class I and II. Determine if mitigation will reduce contrast following completion of surface disturbance. | |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13787-73 | MA #5412 HR-02, HR-11, HR-04 No similar action Require all proposed actions within areas designated as VRM Class I, II, and III objectives to conduct a visual simulation prior to analysis and/or mitigation design. Industry position: Not acceptable. Reason: BLM Manual 8431 states that "Simulations are strongly recommended for potentially high impact projects." A visual simulation would not be required. Industry Position: Acceptable Visual simulations would be required consistent with Manual 8400. Industry position: Not acceptable. Reason: BLM Manual 8400 does not describe when visual simulations are required. BLM Policy 8431 states that "Simulations are strongly recommended for potentially high impact projects." Determine, on a case-by-case basis, whether a project would cause potentially high visual impacts. If there is a potential for high visual impacts then BLM may require a visual simulation consistent with Manual 8400. Alternative C is also acceptable. Resource: Land Resources (LR) - Lands and Realty (6000-6015) | See Update to DEIS Chapter 2.2.6 Section Heritage and Visual Resources - Visual Resources, Management Action 5412 Alternative D, where text has been updated. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13811-11 | 6. Visual Resource Management Restrictions BLM currently manages impacts to visual resources under the Green River RMP through a Visual Resource Management ("VRM") system "by which BLM classifies and manages scenic values and visual quality of public lands" that is "based on research that has produced ways of assessing aesthetic qualities of the landscape in objective terms."29 This system includes four classification tiers designed to "define the degree of acceptable visual change within a characteristic landscape."30 Class I, which is the most restrictive, consists of "primitive areas, some natural areas, some wild and scenic rivers, and other similar areas where landscape modification activities should be restricted."31 Class II areas are those where "changes in any of the basic elements . . . should not be evident in the characteristic landscape."32 Class III "includes areas where changes in the basic elements . . . may be evident in the basic landscape" but which "should remain subordinate to the visual strength of the existing character."33 Finally, Class IV (which is the least restrictive) "applies to areas where changes may be subordinate to the original composition and character" but "should reflect what could be a natural occurrence within the characteristic landscape."34 Alternative B would significantly alter the Green River RMP's distribution of lands within the VRM classification system, placing a greater proportion of lands within the more restrictive classifications. Under the Green River RMP, 225,717 acres are managed as Class I; 582,672 acres are managed as Class II; 615,492 acres are managed as Class III; and 2,180,423 acres are managed as Class IV. The changes in Alternative B, would result in fewer Class IV areas and more Class II areas. Under Alternative B, 2,148,902 acres would be managed as Class II (369% increase over the Green River RMP) and only 563,754 acres would be managed as Class IV (74% reduction over the Green River RMP). This systemic shift would impose significant burdens on the Dry Creek Project and on Pacific's future projects in perpetuity. Under the Green River RMP, the Dry Creek Project would have fallen within Class III and could have proceeded with applicable mitigation. But under Alternative B, it would fall within Class II.35 BLM provides no justification for this shift, and it is not evident that the shift addresses any currently unaddressed problems.36 And the systemic shift of lands from Class III to Class II, and from Class IV to Class III, does nothing to protect sensitive Class I areas. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13811-12 | Under the Green River RMP, BLM can still use the VRM classification system to mitigate visual impacts. Moreover, there are other federal agency tools already working to address visual impacts, which would apply to the Dry Creek Project, including the requirement for projects to obtain PSD permits under the Clean Air Act, emission reduction requirements under the Regional Haze Rule, and restrictions on NOx emissions under the Good Neighbor Rule. These operational requirements are already mitigating visual impacts, and further limitations as proposed in Alternative B are unnecessary and crippling to further economic development in the Planning Area. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13831-10 | Map 2-18: Visual Resource Management - Alternative B - Lands around airport (north and west) identified as VRM Class III which states that changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident. However, the changes should remain subordinate to the visual strength of the existing character. This would have a limiting impact on development on BLM managed lands around the airport. | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13848-2 | much of the current Leucite Hills Project Area would be changed from VRM Class IV, which is considered suitable for wind development, to Class III, which may not be suitable for wind turbines, and Class II where turbines would presumably be prohibited. In addition, as discussed below, BLM has proposed to allow offsite VRM designations to prevent wind development on private lands and lands classified for less-restrictive VRM. | See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. BLM does not have jurisdiction to manage visual resources on private lands. |
| 824 - Heritage and Visual Resources–Visual | #13865-35 | 9. Visual Resources PacifiCorp is concerned that the proposed extensive visual buffers in Alternative B surrounding trails and other visual resource areas will create setbacks from ROWS that are significantly greater than the original buffer. The evaluation of direct or indirect impacts on visual resources has established protocols that are consistent across all BLM Field Offices. The Visual Resource Management (VRM) system has a process to evaluate and inventory resources and landscapes for their visual values. Cultural resources such as trails, | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, |

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| Resources (5400-5413) | | historic roads, petroglyph panels, and Traditional Historic Properties (THPs) have specific buffers or processes to establish indirect buffers to protect specific resources through consultation. Changing a VRM class through the establishment of an ACEC is inconsistent and contradictory with the VRM inventory process. Creating arbitrary buffers and/or increasing trail buffers that are inconsistent with adjacent BLM Field Offices and other agencies engaged in the evaluation process is problematic, creates confusion, and is an overreach of BLM's authority. Extending trail buffers up to 20 miles creates large exclusion areas that inhibit future development along linear resources across the entire field office. This hinders PacifiCorp's ability to site new power lines in response to increasing customer load, for reliability improvements, and to bring new renewable energy onto the grid. Presently, trails are inventoried with non-contributing segments of linear cultural resources allowing for development in certain areas. Extending the visual buffers to 5, 10, or 20 miles would remove this ability. BLM must follow its internal policy for inventorying visual resources and protect relevant landscapes within this process. Trail buffers must remain consistent with adjacent BLM Field Offices that manage the same resources. | Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13865-47 | [comment:13865-47; 824, 827]. In addition to the inconsistencies already discussed, Alternative B will create regulatory inconsistencies across BLM field offices and is beyond the scope of BLM regulation. There must be consistency across BLM field offices. For linear utilities or any project that straddles field office boundaries, changing how any resource is managed within multi-agency process driven protocol is going to result in confusion, inconsistencies, and the immediate need for variances and exceptions. Disregarding the VRM process or Section 106 process that ultimately finds its way to SHPO so that affects are seen differently than all other BLM Field offices will create inconsistent evaluation of the same resource. Alternative B exceeds BLM regulatory authority by, for example, changing avian seasonal stipulations and buffers that have been established by other agencies is beyond the scope of a land management agency.[comment end] | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13865-60 | A.2.1. For resources that require multi-agency agreement such as cultural, no action should take place that is inconsistent with established BLM protocol in adjacent Field Offices with agencies such as SHPO, tribal consultation or NHT. Buffers on the trail should remain the same and consistent. VRM classifications should go through the evaluation process and be defined geographically in a manner that captures the intended protection clearly if there are proposed changes. The Green River formation is shared by four Field Offices and there would be no benefit in changing the stipulations for Paleontology and the management of fossil rich strata. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13865-61 | Painting all above-ground structures, production equipment, tanks, transformers, and insulators not subject to safety requirements to blend with the natural color of the landscape, using paint that is a non-reflective "standard environmental color" approved by the BLM visual resource management specialist: All new equipment brought onto the sites should be painted the same color(s)." Power line infrastructure, including transformers, insulators, and other equipment are subject to safety requirements, are not normally available in different colors, and cannot be painted due to engineering, operational, and safety concerns. Most power line infrastructure blends with the landscape (gray or wood colors). Some avian protection devices are made in different colors, including gray or red, due to engineering and material properties intended to prevent flashovers and UV decay. Due to these considerations and the DEIS language regarding safety requirements, PacifiCorp recommends that the BLM remove these color and painting stipulations related to utility infrastructure from the RMP. | The referenced Best Management Practice as seen in the DEIS Volume II Appendix A.2.7 specifically states that this practice is only applicable to infrastructure that is not subject to safety requirements. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13905-4 | Applying a blanket Class IV designation, as in Alternative C, is completely inappropriate because the agency has a responsibility to manage for the retention of visual resources under its ownership and management, irrespective of the choices of private landowners. There are a number of important visual resources within the checkerboard, and these should be granted the maximum possible protections. The Haystacks are an integral part of the Adobe Town Very Rare or Uncommon area, where the state Environmental Quality Council found. "petitioner has proven that Area A deserves the very rare or uncommon designation due to its historical, geological, wildlife and scenic values. The area includes The Haystacks region and is beyond rare or uncommon." Black Rock is a volcanic butte which falls entirely within the checkerboard and is an important scenic landmark that deserves visual resource conservation. Delaney Rim is characterized by banded red sediments and badlands all along its northern front and is a scenic wonder that deserves maximum protection. The Kinney Rim extends northward into the checkerboard and is part of a citizens' proposed wilderness and deserves Class I protection. The areas around Aspen Mountain are popular for recreation and deserve Class II scenic conservation. The Point of Rocks - South Pass Road and the Overland Trail each cross substantial portions of the checkerboard, and the viewsheds of each should receive Class I designation in order to fulfill the NHPA directive to protect not only the historic feature, but also its setting. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13911-12 | The BLM recognized during the Rawlins RMP revision process in 2008 that VRM Class II was inappropriate in the Checkerboard and also agreed to revise its VRM Class II classifications to not affect existing leased areas. See Attach. 3, Rawlins Protest Resolution Report Excerpt at pp. 139-142 (Dec. 24, 2008). The VRM designations were remanded after the protest period to reevaluate the designations and complete an updated inventory of the visual resources within the planning area to comply with its own VRM policy. Id. The BLM last completed a visual resource inventory in the planning area in 2009 and 2011. DEIS at 3-17. In addition, the inventory included in the Analysis of the Management Situation ("AMS") that was used in formulating the alternatives was completed in 2013 and has not been updated in response to changing conditions. Id. at ES-1. So, most of the information relied | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |

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| | | upon by the BLM in designating VRMs is over a decade old. Even with this older data, when you compare Map 3-8 that shows existing federal oil and gas leases to Map 2-18 (Alt. B) and Map 2-20 (Alt. D), it shows that the BLM has designated VRM Class II management in areas with extensive oil and gas leasing that was approved under the Green River RMP. Under IBLA's holding, the VRM Class II would be largely invalid and unenforceable across the planning area. | |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13912-11 | BLM provides little or no justification for this significant change in management for historic trails. BLM does not explain why current protections, which are applied on a case-by-case basis, are now inadequate to protect historical resources. Indeed, all federal actions in the planning area, regardless of their distance from historic trails, must undergo National Historic Preservation Act Section 106 consultation, including consultation with the State Historic Preservation Office ("SHPO"). That means that under current management, undertakings within the viewshed of these trails are already carefully examined, cautiously permitted, and subject to minimization and mitigation requirements in consultation with the SHPO. Blanket restrictions that place large swaths of public lands off limits to preserve the landscape for a handful of potential historic trail users illegally violate BLM's multiple-use obligation, and in checkerboard areas, these restrictions, make no sense where existing private surface uses affect the visual landscape and BLM cannot effectively manage to avoid interference with the historical setting. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13912-13 | The area would also be designated as visual resource management ("VRM") class II (MA# 7557), so that no activity would be allowed that might attract the attention of the casual observer.2 Specific to the class II designation, the decision does not align with the visual resource inventory ("VRI") class designations for the area of the Big Game Migration Corridor ACEC within the checkerboard. See Draft EIS, Map 3-16. Much like VRM classes, VRI classes-which BLM determines under a thorough rubric-are listed from I through IV with lower numerals representing areas of higher interest. BLM Manual H-8410-1 V.A.1. Most of the Big Game Migration Corridor ACEC falls within VRI class III designations, but BLM proposes to designate those same areas as VRM class II. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13913-1 | B. National Historic Trails west of U.S. Highway 191 For the segments of trail west of U.S. Highway 191, including the main stem of the Oregon-California-Mormon trails, the Sublette Cut-Off, and the Kinney and Slate Creek Cut-off Variants, we recommend the viewshed buffer be "up to five miles" dependent of viewshed analysis for all segments that the NPS assessment3 considers are high potential, with management actions 7002-7006 applied. For segments in poorer condition, that buffer could be reduced to "up to ½ mile" for the application of the associated management actions. | See DEIS Chapter 2.2.6 section Special Designations - Congressionally Designated Trails, Management Action 7000-7022 for a full range of alternatives analyzed regarding these trail resources. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13925-3 | Alternative B Visual Resource Management assigns Class II objectives for more than 2,148,902 acres even though BLM did not follow its own guidance. BLM cannot apply a VRM Class using only and inventory and/or future land uses (or restrictions). Instead, BLM must apply the inventory to current land uses and allocations, such as oil and gas leases. H-8410-1, V.A.1., V.A.2. BLM assigned the inventory class rather than follow the next steps. The DEIS omits entirely land rights and pre-existing land uses that conflict with VRM II objectives. If enforced, Alternative B VRM class assignments effect an inverse condemnation of RSGA land rights as well. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 824 - Heritage and Visual Resources–Visual Resources (5400-5413) | #13925-7 | There is every indication that BLM did not correctly develop the VRM Classes. We know the DEIS visual resource inventory dates from 2011. AMS at 186. In the past 13 years, BLM has approved construction of three transmission lines, solar energy, oil and gas lease development, expansion of a coal and the trona mines, to name a few projects. Thus, the inventory is out of date. Based on the close correlation between VRM Class and proposed management, e.g. ACEC or LWCs, it is apparent that BLM made the VRM Class assignments based on the inventory and future land management objectives, regardless of the existing land rights. BLM policy requires BLM to complete a visual resource inventory and then assign the class based on contrast rating of current land rights and land uses. H-8410- 1, V.A.1; V.A.2. | See DEIS Volume I Chapter 3.14.1 'Existing Visual Resource Management Classifications' for an explanation of the methodology and BLM handbook involved in designating Visual Resource Management Classes. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. See DEIS Volume I Chapter 2.2.6 Section Heritage and Visual Resources, Visual Resources, Management Actions 5400-5413 for a full range of alternatives analyzed regarding to Visual Resource Class. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #41-1 | I think that the fair and equitable thing to do would be to release (or dispose) of an equivalent amount of land of equal or greater quality, so as not to adversely impact the economy of this region. Further, the BLM should take a leadership position in making more land available in the areas surrounding Wyoming towns so that more affordable housing can be built. | Management actions for all four alternatives are identified for disposals and can be found in the DEIS management action 6013 and disposal criteria is identified in Appendix K. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #41-2 | One solution that I ask that the BLM implement would be to take into account the long term impact of any land use changes. For example, if you wish to set-aside and further restrict land as in this case, an equivalent amount of land of similar or better quality must be released, or sold to the public. | Management actions for all four alternatives are identified for disposal actions can be found in the DEIS management action 6013-6014 and the criteria for considering land tenure (disposal, land exchanges, and land sales) actions are identified in Appendix K. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #185-1 | I would also like to see you allow the sale of federal land that are within a 10 mile radius of Rock Spring for private housing purposes. It would really be nice if you would sell individual parcels to regular citizens rather than to realators or developers. | Land Sale criteria is identified in Appendix K |

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| 825 - Land Resources–Lands and Realty (6000-6015) | #406-1 | Please allow disposal of the 27,276 acers proposed in the latest draft. I would like to see the 120 acers north off Yellowstone Rd Rock Springs is consider. Please allow individuals to purchased land instead if realtors and investors so that more people have a chance to purchase BLM Land | Land Sale criteria is identified in Appendix K |
| 825 - Land Resources–Lands and Realty (6000-6015) | #488-1 | our home and outbuildings can only be accessed by a driveway that includes a 100 yard section goes through BLM land. Obviously, we would take a huge financial loss if we were to lose those ROWs. This is the generic situation that all rural landowners will find themselves in, if the broadest brushstroke version of Alternative B is chosen and implemented. I propose that Alternative B be modified so that ROWs are maintained for property owners who would suffer financially from their loss but be removed for non-property owners. This would accomplish the Alternative B aim of dramatically limiting access and use of BLM land without causing irreparable financial damage to land owners. | Please see Planning Criteria in Section 1.4 for a discussion of private lands. Management actions for all four alternatives are identified for disposals and can be found in the DEIS management action 6000. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #7196-1 | Clearly a large problem with land in this management area is the historic checkerboard along the railroad. I think the BLM should make it an objective to consolidate, by exchange with willing private landowners, public lands so that these lands can be managed more uniformly and with less conflict. Inholdings with particular value to the public could also be purchased outright. | See Section 2.2.4 for Alternatives Considered but not Analyzed. Management actions for all four alternatives are identified for disposal actions can be found in the DEIS management action 6013-6014 and the criteria for considering land tenure (disposal, land exchanges, and land sales) actions are identified in Appendix K. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #7196-3 | Wildlife migration, crucial wintering and parturition areas need to be given the maximum protection. In some cases this can be accomplished by seasonal restrictions. New ROWs should be routed so as to avoid these sensitive areas. | Management actions for all four alternatives are identified for ROW/allowable uses within big game crucial winter range and parturition areas in the DEIS management actions 6000 and 4421. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #9354-2 | 1517 Alternative B Pursue acquisition of the state parcels- I am not entirely sure what this mean but I believe you are wanting to buy or acquire all state and private land inside the allotment, and "manage" them. Again this land is for the people. To enjoy and as a rancher we pay to use these lands. | Criteria for acquisitions can be found in Appendix K of the DEIS. MA#1517 applies to the specific Lands with Wilderness Characteristics parcel WY040-2011-088. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | See Glossary for a definition of 'surface disturbing activities'. Also, Management actions for all four alternatives are identified for ROWs and can be found in the DEIS management action 6002. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13273-1 | Also, I ask that the BLM strive continuously to consolidate lands (avoiding checkerboards with private land management) to create more viable wildlife habitat. | Management actions for all four alternatives are identified for acquisitions and can be found in the DEIS management action 6014. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13287-3 | Should there be a lack of a willing party to a land exchange, the law does not actually require one. The federal government has the power of eminent domain, and can condemn private land into federal ownership for any reason implementing the public interest. All four alternatives "would not use the powers of condemnation to acquire lands" DEIS at 2-14); given that the use of condemnation is an eminently reasonable alternative, the across-the-board failure to consider the use of this tool creates legal sufficiency issues. Here, the public interest in maintaining wild horses on public lands and improving access to federal land sections could (and should) be counterbalanced with equitable compensation for private land and private mineral owners (notably, much of the checkerboard private land is "split estate" in which the landowners and miner owners are different entities). | Management actions for all four alternative are identified in the DEIS management action 6014 and Appendix K. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13287-4 | A land consolidation initiative would improve conservation of migration corridors, sage grouse, and potential wilderness, obviate the need to depopulate federal public lands of wild horses for the benefit of interspersed private landowners, and would resolve long-festering public land access problems posed by the checkerboard ownership pattern. We do appreciate that the Proposed Action would consider acquiring additional lands along perennial waters and wetlands (DEIS at 2-63). But this measure hardly covers the need in a field office where perennial waters and wetlands are exceedingly scarce. And we appreciate the Preferred Alternative's direction to acquire Wyoming tansymustard habitat on Pine Mountain (DEIS at 2-78); it is odd that this direction was incorporated into the 1998 Green River RMP, but was never acted upon. Sage grouse Priority Habitats and Winter Concentration Areas; large mammal migration routes, parturition ranges, and winter ranges; and lands with wilderness characteristics (but lacking the size criterion due to private inholdings) should likewise be considered for acquisition. | Management actions for all four alternatives are identified for Acquisitions in the DEIS management action 6014. and Appendix K for lands considered for acquisition. |

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| 825 - Land Resources–Lands and Realty (6000-6015) | #13287-19 | We recommend against zoning any part of the RSFO for geologic carbon sequestration and associated studies (see, e.g., DEIS at 2-109). While the Rock Springs Uplift has been promoted as a target for pumping CO2 into underground formations, and it has been argued that there is a "triple seal" in this area securing it from loss of injected CO2, the Rock Springs Uplift is in fact riddled with faults. We have no confidence that it can securely and permanently hold injected CO2 underground. If the CO2 is burped out to the surface, it could suffocate any animal on the surface (including people), creating a major public safety hazard. If it leaks out slowly, then the whole exercise will have been pointless. | Management actions for 3 alternatives are identified for geologic carbon sequestration exploration and site characterizations and commercial sequestration projects in management action 6001. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13490-5 | *Include provisions for consolidating checkerboard lands through land swaps with private landowners to create contiguous public land habitat for wild horses and other wildlife. This will reduce conflicts, enhance public access to public lands, and alleviate land management challenges. | Management actions for all four alternatives are identified for acquisition of lands in the DEIS management action 6014, and Appendix K for lands considered for acquisition. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13493-5 | Land exchanges also allow the BLM to reposition or consolidate lands into more manageable units…" (BLM Lands and Realty – Sales, R&PP and Exchanges; The BLM Lands Exchange Handbook 2-294) The EIS fails to hard look at alternatives. | Management actions for all four alternatives are identified for acquisition of lands in the DEIS management action 6014, and Appendix K for lands considered and criteria for land exchanges. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13515-7 | As a long-term partner in BLM lands/realty work, RMEF supports continued use of land acquisitions and conservation easements to conserve critical habitat for big game and other wildlife. BLM-managed lands across the planning area include several landlocked parcels and/or a checkerboard arrangement. RMEF supports Plan components recognizing that acquisition or land tenure adjustments should focus on consolidating land ownership, improving public access, and conserving/enhancing resources. | Management actions for all four alternatives are identified for acquisition/easement of lands in the DEIS management actions 6000 and 6014, and Appendix K for lands considered and criteria for acquisition. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13542-47 | MA#6004. Alternatives B, C, and D. 2-110 If impacts are mitigated, why is there a daily limit restriction during construction for open pipeline trenches? This will add extra time and unnecessary costs to projects when mitigation efforts are already required for livestock, wildlife, and public safety. Please analyze and disclose to the public the scientific or other industry data used to rely on for this limitation. | Management action 6004 in DEIS considers stipulation across the three alternatives to mitigate impacts to livestock, wildlife, and public safety. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13624-84 | Ch.2#2-109#6001#Alternative B "Limit geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities to the Rock Springs Uplift."#It is unclear why the BLM is proposing to limit carbon sequestration to the Rock Springs Uplift in Alternative B of the RMP, particularly given that BLM must ensure that all activities are compatible with resource objectives and given that the federal administration has prioritized addressing greenhouse gases and climate change, including through carbon capture sequestration and utilization projects. In addition, RSFO did not describe how the Rock Spring Uplift was identified, did not provide a map of the Uplift boundaries, and did not identify how carbon capture potential will be impacted by the preferred alternative. Although BLM has jurisdiction to issue right-of-way authorizations for subsurface pore space, RSFO did not coordinate with WDEQ/WQD or the Wyoming Oil and Gas Conservation Commission (WOGCC) in identifying this management action, despite the fact that WDEQ/WQD has authority for determining Class VI Underground Injection Control (UIC) potential and permitting Class VI UIC wells and WOGCC has authority to issue pore space Unitization Orders. The RSFO should also be aware of WDEQ/WQD's ongoing discussions with BLM National and State offices to inform development of a memorandum of understanding (MOU) regarding carbon capture and sequestration. In light of these ongoing discussions, it is counterproductive for the RSFO to propose management actions regarding sequestration until the MOU has been finalized.[...] To address these issues, the RSFO should 1) not include any management actions that may conflict with the MOU; 2) coordinate with WDEQ/WQD and WOGCC regarding carbon capture sequestration projects and associated management actions in the RMP; 3) if BLM decides to retain any management action that may limit carbon capture and sequestration, provide justification for why limiting sequestration helps meet management objectives and how carbon capture potential in the management area will be impacted; and 5) if RSFO decides to retain the Rock Springs Uplift as the sole area available for such activities, describe how this area was identified and include a map of the area. | See Section 5.1 about consultation & coordination. Section 5.1.2 for a list of cooperating agencies that participated in development of he DEIS. See Table 5-1 for how those agencies coordinated and their responsibilities for developing the DEIS. Management actions for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, 4.19 Lands and Realty, see also Section 4.19.1 Assumptions. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13672-3 | The planning area includes a large amount of land in the checkerboard land ownership. The large broad-brush ROW exclusion and avoidance areas prescribed in MA#7002 and MA#7003 could make it impossible in some cases for private landowners to exercise their rights for access and development. These broad-brush exclusions and avoidance areas should be removed and replaced with case-by-case assessment in the checkerboard ownership areas. Case by case assessment of development projects has worked well under the 1997 RMP in that it has protected wildlife populations and other resources and allowed development and land uses to continue. It remains a good model to follow. | Management actions for all four alternative are identified in the DEIS management action 6002 for lands available for ROWs. |

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| 825 - Land Resources–Lands and Realty (6000-6015) | #13729-2 | Because rights of way are necessary for virtually any new economic development and because of the BLM's ownership of land in the "checkerboard" area along I-80, under Alternative B essentially no new project requiring a road, a pipeline or a broadband cable could be constructed. This would severely limit not only Wyoming's traditional industries but would also prevent Southwest Wyoming from developing renewable energy projects or carbon capture from existing point sources. This would violate the BLM's own Instruction Memorandum IM 2022-41, which encourages the BLM to "authorize the BLM to issue [right of ways] to geologically sequester CO2 in federal pore space. . ." | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." Management actions for all four alternative are identified in the DEIS management action 6001 and 6002 for lands available for CO2 and ROWs. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-62 | The cooperating agencies, in particular Sweetwater County, the City of Rock Springs and the City of Green River along with the BLM must consider alternatives for land adjustments in order to accomplish the housing needs for the future expansion and growth of the community. The future socioeconomics of the area depends on the agencies to make these proper public land tenure adjustments which must be added to Appendix K. Lacking this collaboration and required decision making, southwest Wyoming may never see these projects, which will have a long-term negative impact on the local, state and national economy, and ultimately go against the goal of E.O. 14008. | An assessment of the long term housing needs of the community are outside the scope of the RMP. Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." Management actions for all four alternatives are identified in the DEIS management action 6013 for disposal and described in Appendix K. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-150 | MA #6000 ALT B Industry Position: Not Acceptable Reason: The RMP area is a checkerboard so reference to isolated private and state sections is not accurate. Restriction of access goes against FLPMA. ALT D Industry Position: Not Acceptable Reason: Restriction of access goes against FLPMA. Access to minerals and other values must continue to be available. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." Management actions for all four alternatives are identified in the DEIS management action 6000 for access and described in Appendix K. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-151 | MA #6001 ALT B Industry Position: Not Acceptable Reasoning: No logic for the restriction is provided, and it seems to be based on political reasoning rather than scientific reasoning. ALT C Industry Position: Not Acceptable Reasoning: BLM need not facilitate such actions, project proponents will do so. | There are four alternatives for consideration identified in the Draft EIS, and the four alternatives were analyzed in Chapter 4, Section 4.19, Lands and Realty. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-152 | MA #6002 ALT B C D Industry position: Not acceptable Reason: Not clear which land have been identified as not open to the consideration of granting lands/realty actions. | Map 2-21, 2-22, 2-23, and 2-24 in the DEIS identified lands open to consideration under management action 6001. See Appendix K, Table K-1. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-153 | MA #6004 ALT B C D Industry Position: Not Acceptable Reasoning: Some pipelines trenches must be left open or partially buried for extended periods of time for safety reasons. 10 days is arbitrary. | A range of alternatives has been analyzed for pipeline trenches in Chapter 2.2.6, management action 6004. Analysis of impacts for actions in each alternative is found in Chapter 4, Section 4.19. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-154 | MA #6008 ALT A Industry position: Not acceptable Reason: The land withdrawals would negatively impact the trona and coal industries. The RMP states that this action could "potentially increase the cost of developing trona resources, and could result in a reduction in trona resources extracted via mining activities." These land withdrawals would conflict with the KSLA, which has a higher value resource. ALT B Industry position: Not acceptable Reason: The land withdrawals would have the potential to close 49,224 acres to trona leasing and development within the KSLA. These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. ALT C Industry position: Not acceptable Reason: This alternative eliminates existing ACECs and other lands accounted for in the current RMP. ALT D Industry position: Not acceptable Reason: These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. | See Glossary for the definition of 'withdrawal', which applies only to land law minerals such as hard rock mining and does not apply to leasable minerals such as trona, coal, or fluid minerals. Management actions for all four alternatives are identified in the DEIS management action 2000-2419, for Minerals Resources-Locatable Minerals. Appendix V, Table 2-3 Identifies Areas Proposed for Withdrawal from Mineral Location. Specific management actions are listed 2408-2411 and Table 2-7, for Trona for Other Leasable Minerals. There were four alternatives analyzed in the DEIS and found in Chapter 4 and 4.11 Energy and Minerals. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-155 | MA #6009 AT A Industry position: Not acceptable Reason: The land withdrawals would have the potential to close 49,224 acres to trona leasing and development within the KSLA. These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. ALT B Industry position: Not acceptable Reason: The land withdrawals would have the potential to close 49,224 acres to trona leasing and development within the KSLA. These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. ALT C Industry position: Not acceptable Reason: This alternative eliminates existing ACECs and other lands accounted for in the current RMP. ALT D Industry position: Not acceptable Reason: These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. | See Glossary for the definition of 'withdrawal', which applies only to land law minerals such as hard rock mining and does not apply to leasable minerals such as trona, coal, or fluid minerals. Management actions for all four alternatives are identified in the DEIS management action 2000-2419, for Minerals Resources-Locatable Minerals. Appendix V, Table 2-3 Identifies Areas Proposed for Withdrawal from Mineral Location. Specific management actions are listed 2408-2411 and Table 2-7, for Trona for Other Leasable Minerals. There were four alternatives analyzed in the DEIS and found in Chapter 4 and 4.11 Energy and Minerals. |

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| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-156 | MA #6010 ALT B Industry position: Not acceptable Reason: BLM should conduct a VRI of withdrawn lands to determine the management objectives. ALT D Industry position: Not acceptable Reason: BLM should conduct a VRI of withdrawn lands to determine the management objectives. | Management actions for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, 4.19 Lands and Realty. Appendix K identifies Land Tenure Adjustment Criteria. The VRI can be found on map 3-16. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-158 | MA #6009#LR-04, BR-29, HR-13, BR-24, HR-2.1#Withdrawals and classifications would be processed to protect important resource values (Appendix K). Industry position: Not acceptable Reason: New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws.#See MA #6008 Industry position: Not acceptable Reason: The land withdrawals would have the potential to close 49,224 acres to trona leasing and development within the KSLA. These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws.#See MA #6008 Industry position: Not acceptable Reason: This alternative eliminates existing ACECs and other lands accounted for in the current RMP.#See MA #6008 Industry position: Not acceptable Reason: These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws.#Withdrawals would be pursued. New withdrawals would be evaluated on a case-by-case basis and would be in compliance with the Federal Mining Leasing Act of 1920 as Amended. | See Glossary for the definition of 'withdrawal', which applies only to land law minerals such as hard rock mining and does not apply to leasable minerals such as trona, coal, or fluid minerals. Appendix K identifies Land Tenure Adjustment Criteria. Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." Management actions for all four alternatives are identified in the DEIS management action 2000-2419, for Minerals Resources-Locatable Minerals. Table 2-3 Identifies Areas Proposed for Withdrawals from Mineral Location, and Appendix V, Areas Proposed for Withdrawal from Mineral Location. Specific management actions are listed 2408-2411 and Table 2-7, for Trona for Other Leasable Minerals. There were four alternatives analyzed in the DEIS and found in Chapter 4 and 4.11 Energy and Minerals. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13751-159 | MA #6010#LR-03, BR-20, HR-13#Withdrawals which no longer serve the purpose for which they were established would be revoked. Prior to revocation, withdrawn lands would be reviewed to determine if any other resource values require withdrawal protection (Appendix K). Industry position: Acceptable It should be noted that Appendix K does not discuss withdrawals.#Revoke withdrawals which no longer serve the purpose for which they were established (Appendix K). Review withdrawn lands, prior to revocation or expiration, to determine if any other resource values require withdrawal protection. Manage lands within withdrawn areas that expire or are revoked in accordance with the management of the surrounding lands. Industry position: Not acceptable Reason: BLM should conduct a VRI of withdrawn lands to determine the management objectives.#Same as Alternative A Industry position: Acceptable#Same as Alternative B Industry position: Not acceptable Reason: BLM should conduct a VRI of withdrawn lands to determine the management objectives.#Alternative A is acceptable. | Management actions for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, 4.19 Lands and Realty, see also Section 4.19.1 Assumptions. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13775-2 | BLM-WY currently manages areas that are closed to mineral leasing, have NSO stipulations, or are otherwise identified as unsuitable for surface disturbance or occupancy as ROW exclusion or avoidance areas. This is an appropriate practice which protects areas and resources which require such protection will still limiting ROW exclusions to only 12 percent of the planning area. But BLM-WY presents no justification for expanding ROW exclusions beyond such areas and encompassing the majority of the planning area in such exclusion zones. Nor does BLM-WY articulate how such an expansion would enhance would provide better protection to any of the resources under its management. Such omissions call into question the need or legitimacy of such a policy change. If BLM- WY has a substantive reason for such a restriction, it should, and indeed is required to, articulate it in detail in the Draft RMP. | See Special Management sections in both Chapter 3 and Chapter 4, along with the various special management proposed management actions in Chapter 2. Management actions for all four alternatives are identified in the DEIS management action 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, Section 4.19 Lands and Realty. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13787-74 | MA #6000 LR-06, LR-07, LR-02, BR- 24 Access to public lands would be provided throughout the planning area. Where necessary and consistent with off-road vehicle (ORV) designations, access would be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values. Easements would be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres) Appendix K. Industry Position: Acceptable Evaluate, on a case-by-case basis, access needs to public, state, and private land within the planning area. Restrict access where necessary to protect public health or safety and sensitive resources. Consider, when requested by the land owner, access across public land to isolated private and state land consistent with the guidelines and objectives set forth in FLPMA and existing regulatory requirements. Industry Position: Not acceptable Reason: The RMP area is a checkerboard so reference to isolated private and state sections is not accurate. Restriction of access goes against FLPMA. Same as Alternative A Industry Position: Acceptable Restrict or close access where necessary and consistent with OHV designations: 1) in specific areas to protect public health and safety; and 2) to protect significant resource values. Pursue easements where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (Appendix K). Industry Position: Not acceptable Reason: Restriction of access goes against FLPMA. Access to minerals and other values must continue to be available. Alternatives A and C are acceptable. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies. "Management action for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, Section 4.19 Lands and Realty. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13787-75 | MA #6001 PR-01, PR-02, PR-03 No similar action Industry Position: Not acceptable Reasoning: This is new to the RMP and requires appropriate land planning. Limit geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities to the Rock Springs Uplift. Industry Position: Not acceptable Reasoning: No logic for the restriction is provided, and it seems to be based on political reasoning rather than scientific reasoning. Facilitate geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities throughout the area of review. These | Management action for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, Section 4.19 Lands and Realty. |

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| | | could range from the prospective use of deep saline aquifers, e.g., Weber Sandstone and Madison limestone formations, deep unmineable coal seams, and suitable depleted oil and gas fields after the completion of Enhanced Oil Recovery. Industry Position: Not acceptable Reasoning: BLM need not facilitate such actions, project proponents will do so. Allow geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities (Appendix H). Industry Position: Acceptable Reason: Carbon sequestration exploration and commercial projects will require authorization from the WDEQ-WQD. Alternative D is acceptable. | |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13787-76 | MA #6002 LR-06, MR-03 Public lands would be made available throughout the planning area for rights-of- way, permits, and leases. Industry position: Acceptable Reason: Public lands within the planning area should be available for rights-of-way, permits, and leases. The planning area is open to the consideration of granting lands/realty actions, except where identified. Industry position: Not acceptable Reason: Not clear which land have been identified as not open to the consideration of granting lands/realty actions. Same as Alternative B Industry position: Not acceptable Reason: Not clear which land have been identified as not open to the consideration of granting lands/realty actions. The planning area is open to the consideration of granting lands/realty actions, except where identified. Industry position: Not acceptable Reason: Not clear which land have been identified as not open to the consideration of granting lands/realty actions. Alternative A is acceptable. The planning area is open to the consideration of granting lands/realty actions on a case-by- case basis. | Map 2-21, 2-22, 2-23, and 2-24 in the DEIS identifies lands open to consideration under management action 6002. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13787-77 | MA #6004 LR-06, BR-46, BR-35 No similar action Stipulate pipeline trenches are not allowed open longer than 10 days during the construction phase. Require pipeline gates to mitigate impacts to livestock, wildlife and public safety. Industry Position: Not Acceptable Reasoning: Some pipelines trenches must be left open or partially buried for extended periods of time for safety reasons. 10 days is arbitrary. Same as Alternative B Industry Position: Not Acceptable Reasoning: Some pipelines trenches must be left open or partially buried for extended periods of time for safety reasons. 10 days is arbitrary. Same as Alternative B Industry Position: Not Acceptable Reasoning: Some pipelines trenches must be left open or partially buried for extended periods of time for safety reasons. 10 days is arbitrary. Alternative A is acceptable. Potential modification: Pipeline trenches that are not backfilled at the time of construction or are exposed for maintenance purposes should be managed on a case-by-case basis as discussed and approved with the BLM and pipeline safety authority as needed. | A range of alternatives has been analyzed for pipeline trenches in Chapter 2.2.6, management action 6004. Analysis of impacts for actions in each alternative is found in Chapter 4, Section 4.19. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13787-78 | MA #6008 LR-01, LR-03, LR-04, BR-24, HR-2.1 Land withdrawals identified in the Green River RMP would be pursued. New withdrawals in addition to those identified in the Green River RMP include the top of Steamboat Mountain, the Pinnacles Geologic Feature, and two northern elk calving areas. Industry position: Not acceptable Reason: The land withdrawals would negatively impact the trona and coal industries. The RMP states that this action could "potentially increase the cost of developing trona resources, and could result in a reduction in trona resources extracted via mining activities." These land withdrawals would conflict with the KSLA, which has a higher value resource. Process land withdrawals identified in Table 2-3, Appendix V. Industry position: Not acceptable Reason: The land withdrawals would have the potential to close 49,224 acres to trona leasing and development within the KSLA. These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. Process land withdrawals identified in Table 2-3, Appendix V. Industry position: Not acceptable Reason: This alternative eliminates existing ACECs and other lands accounted for in the current RMP. Process land withdrawals identified in Table 2-3, Appendix V. Industry position: Not acceptable Reason: These land withdrawals would conflict with the KSLA, which has a higher value resource. New land withdrawals should be evaluated on a case-by-case basis and should be in compliance with other laws. Land withdrawals would be pursued. New withdrawals would be evaluated on a case-by-case basis and would be in compliance with the Federal Mining Leasing Act of 1920, as Amended. | See Glossary for the definition of 'withdrawal', which applies only to land law minerals such as hard rock mining and does not apply to leasable minerals such as trona, coal, or fluid minerals. Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." Management actions for all four alternatives are identified in the DEIS management action 2000-2419, for Minerals Resources-Locatable Minerals. Appendix V, Table 2-3 Identifies Areas Proposed for Withdrawal from Mineral Location. Specific management actions are listed 2408-2411 and Table 2-7, for Trona for Other Leasable Minerals. There were four alternatives analyzed in the DEIS and found in Chapter 4 and 4.11 Energy and Minerals. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13811-6 | The implementation of Alternative B would force the BLM to impose additional restrictions on operations and development in proximity to NHTs, which may or may not be necessary to preserve and protect the NHTs. Under the proposed Alternative B, a five-mile wide buffer on either side of the NHT "would be managed as closed to mineral leasing and mineral material sales, as an exclusion area for ROWs, and a withdrawal would be pursued."17 The areas within the five-mile buffer "would have the most protections to soils from surface disturbing activities, as the stipulations would be more restrictive."18 Additionally, within five to 15 miles on either side of the NHT, the area would be managed as open to mineral leasing and mineral material sales with Controlled Surface Use restrictions and would be a right-of-way avoidance area.19 In short, both of these areas "would receive more protections to soils, compared to Alternative A."20 But as with the other categorical restrictions Alternative B proposes, BLM already has discretion to impose case-by-case restrictions in proximity to NHTs. Trading BLM's discretion for categorical restrictions does no more to achieve its conservation goals while at the same time unduly restricting economic development in the Planning Area. Indeed, the technical and economic viability of the Dry Creek Project is detrimentally affected by these proposed restrictions due to the categorical five-mile development prohibition around the NHTs, limiting required access and mineral processing support features critical to reasonable mineral extraction within the KSLA. | Management action for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, Section 4.19 Lands and Realty. |

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| 825 - Land Resources–Lands and Realty (6000-6015) | #13831-8 | * The Airport is the only Commercial Service Airport in the lower 48 that must truck both potable and fire suppression water to serve its facilities. The Airport is not connected to the municipal water supply. In partnership with Sweetwater County, the City of Rock Springs, the Joint Powers Water Board, Simplot Phosphates, Sweetwater Economic Development Coalition, and several others, plans are underway to develop robust water infrastructure east of town to not only support the airport but industrial development between the airport and Simplot Phosphates. The preferred alternative would render the efforts undertaken by partnership useless and eliminate the possibility of delivering a municipal water supply to the airport. | Management action for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, Section 4.19 Lands and Realty. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13831-11 | Appendix B - Management #4430 - Raptor Nests: States that there shall be no surface occupancy within a 1-mile radius of raptor nests. It further specifically identifies airports as infrastructure that have the potential to cause direct avian mortality. o Map 3-4 shows a raptor nest right on the edge of the airport property (western side on the approach to Runway 9). This would eliminate the ability for surface occupancy on BLM managed lands within 1 mile which would once again have an adverse impact on any development around the airport. Surface occupancy is defined as, "Placement or construction on the land surface of semi-permanent or permanent facilities requiring continual service or maintenance". The Airport Board sees this once again impacting infrastructure leading to the airport including the roadway, water, sewer, gas, and electric. | Management action for all four alternatives are identified in the DEIS management actions 6000-6015. The four alternatives were analyzed in the DEIS and found in Chapter 4, Section 4.19 Lands and Realty. |
| 825 - Land Resources–Lands and Realty (6000-6015) | #13945-6 | Yet, the Draft EIS makes no effort to determine the extent to which Alternative B (or any alternative for that matter) will lead to grazing allotments becoming economically unviable to use for livestock grazing and the consequential sell off of private land inholdings. The Draft EIS also makes no attempt to determine the likely environmental impacts to wildlife habitat, open space and visual resources from the development of private lands that are no longer viable for livestock grazing due to loss of economically viable grazing use of the federal BLM land imposed by Alternative B. | Management action for all four alternatives are identified in the DEIS management actions. Fish and Wildlife 4400-4436, Visual Resources 5400-5413 and Livestock Grazing Management 6400-6417. The four alternatives were analyzed in the DEIS and found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #298-2 | You talk about wanting to go to clean energy. Yet you are decreasing by 61% in surface area restrictions. According to Landgate, a wind farm needs approximately 80 acres of land to have a successful wind farm | Management actions for all four alternatives were identified for renewable energy and can be found in the DEIS from management action 6105. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #8858-1 | Within the proposed RMP, a more balanced alternative (Alternative D) would allow for economic uses of the land and provide greater recreational activities. It is stated within the executive summary of the document that one of the focuses of this plan is to address climate change, which would lead one to believe that renewable energy would be the main focus of the plan. While I disagree with the federal government's current climate and renewable energy policies, this plan would even restrict the development of these renewable energy resources. This contradicts the federal government's long-term plan for addressing the climate issue. | Management actions for all four alternatives are identified for renewable energy and can be found in the DEIS management action 6104 and 6105. In addition, please see Comparison of Alternatives table listed on page ES-5 |
| 826 - Land Resources–Renewable Energy (6100-6108) | #9390-1 | Energy: Alternative B drastically restricts the land available for renewable energy deployment and for any new transmission outside of existing corridors. As a project that will require fully additional, low-carbon resources, it's very unlikely that the resources we need could be built in this area under Alternative B. • DAC footprint: While our initial footprint is likely to fall within the Kemmerer Field Office, nearby expansion opportunities include the border between Sweetwater and Lincoln Counties northwest of Green River. Much of this region is included in the ROW exclusion. Even if we built entirely on private land, it would be nearly impossible to access the potential sites. • Sequestration/storage: Similar to above (DAC footprint), nearby expansion opportunities for mineral leasing are almost completely excluded or don't allow surface occupancy under Alternative B. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis of impacts for each alternative, with the proposed management actions for Renewable Energy, can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | See Glossary for the definition of 'surface disturbing activities'. Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Best Management practices (BMPs) can be found in Appendix A. See also Chapter 4 Environmental Consequences: 4.20 Renewable Energy |
| 826 - Land Resources–Renewable Energy (6100-6108) | #10324-4 | A recent study estimated that there are about ten bat mortalities per wind turbine per year, which may sound like a very small number, but when you consider the amount of wind turbines in Wyoming, that is not an insignificant number.12 It was a fantastic start to discuss what precautions would be made to prevent raptor and wind turbine collisions, but it is important to protect our less charismatic species like bats in this area as well. Bats are incredibly unique species and are often misunderstood by the public, which can be a reason why people have not been concerned about the bats in the area thus far. However, bats are critical for the habitats they live in and provide incredible benefits to humans, and with bats facing risks in addition to wind turbines like White Nose Syndrome, the urgency to protect these species is increasing. One of the incredible services that bats provide to the humans in the area is the consumption of insects, including pest insects | See Chapter 4.8 for Analysis of Special Status Species |
| 826 - Land Resources–Renewable | #13287-17 | We also support proposed prohibitions on wind development in raptor concentration areas and other sensitive habitats. These protections also should be extended to solar developments, as these have been shown to block or impede antelope migrations (Sawyer et al. 2022, Attachment 6). We offer the report Wind Power in Wyoming: Doing it Smart from the Start (Attachment 7) as a comprehensive blueprint for lands where wind power | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Impacts to wildlife are analyzed in 4.7. Best Management practices (BMPs) can be found in Appendix A. See also Chapter 4 Environmental Consequences: 4.20 Renewable Energy |

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| Energy (6100-6108) | | development should be excluded. Importantly, this report included as a Best Management Practice to keep big game seasonal habitats as "caution areas" rather than "exclusion areas" for wind development, pending scientific research to determine whether they should become exclusion areas. That scientific research has been completed, and these lands should also be treated as exclusion areas as a result of the finding that wind farm development results in large mammal avoidance. | |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13584-1 | The DEIS does not sufficiently address the potential for solar energy development in the planning area. Additional analysis is needed to account for solar energy potential within the planning area. Section 3.21 Renewable Energy (p.3-27) states "The RMP will identify areas within the planning area that are open to both wind and solar renewable energy development. However, the focus of this section will be on wind energy development because unlike solar, there is high potential for commercially viable wind energy in the planning area." The statement that there is not high potential for commercially viable solar energy in the planning area is incorrect. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Impacts to renewable energy are analyzed in 4.20. Best Management practices (BMPs) can be found in Appendix A. See also Chapter 4 Environmental Consequences: 4.20 Renewable Energy |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13584-2 | According to Appendix P, emissions associated with the production of renewable energy are accounted for in the GHG inventory, but emissions reductions or offsets from production of renewable energy on BLM land are not addressed. | Offsets or emissions reductions from the production of renewable energy are outside the scope of this analysis for the RMP. See AQ Technical Report in Appendix P for the scope of the AQ analysis necessary for the alternatives comparison. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13624-46 | Renewable Energy Development The Draft RMP/EIS identifies an area within the Rock Springs RMP with wind energy development potential. See Draft RMP/EIS, Map 3-12: Wind Energy. A similar map identifying solar energy development potential was not provided in the Draft RMP. This is a significant omission because the Draft Programmatic Solar EIS is to be considered in parallel with the Draft RMP/EIS. BLM should provide additional information and analyses to address impacts of the Draft RMP/EIS on the following regarding renewable energy development: 1. What are the impacts and cumulative impact of Alternative B management actions on renewable energy development potential? How will the proposed right-of-way exclusions impact the ability to develop transmission pathways to markets in the western United States? 2. Most of the renewable energy produced in Wyoming is developed to serve energy markets located in states that are to the west of Wyoming. How will renewable energy that is produced north and east of the Rock Springs RMP access the electricity markets that are located west of the Rock Springs RMP? WDEQ administers the Industrial Development Information and Siting Act that identifies the statutory authority for permitting large industrial facilities. For the purposes of wind and solar, any wind project that consists of 20 or more wind turbines in all planned phases of installation is subject to jurisdiction under this Act. Solar projects that have a rated capacity of more than 30 megawatts or results in surface disturbance equal to or greater than 100 acres would also be jurisdictional. The Industrial Siting Council (ISC) is responsible for reviewing, granting and enforcing industrial permits. The ISC evaluates how an industrial project may impact local socioeconomics, the environment, and wildlife. Permittees are required to develop and implement decommissioning and reclamation plans and may be required to post a bond to cover any future decommissioning and reclamation costs. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4.20. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13665-4 | BLM's preferred alternative also could constrict renewable-energy development such as wind and solar projects. And, if oil-and-gas production in Wyoming is interrupted by selection of BLM's preferred Alternative B, then the renewable energy sources that remained would not meet local energy needs. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Chapter 4 Environmental Consequences: 4.20 Renewable Energy. See also 2.2.5 Overview of the Alternatives, p. 2-3. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13665-34 | Although BLM candidly acknowledges that Alternative B would severely constrain energy development projects-from both traditional and renewable sources-BLM's rationale for favoring that alternative does not support such a radical departure from current policy. For example, even though "[i]mpacts to wildlife and fisheries habitat from … renewable energy …would be the same as those described under Alternative A," id. at 4-67, Alterative B nonetheless restricts over two-million acres from renewable energy development-four to five times as many as are currently off-limits under Alternative A. See id. at ES-5. But if the "[i]mpacts to wildlife and fisheries" would be largely the same under Alterative B "as described under Alternative A"-the less-restrictive, "no action" alterative-then why close-off hundreds of thousands additional acres just to reach the same environmental outcome? Not only is BLM's "preferred alternative" illogical, but the agency's preference for that alternative is "arbitrary, capricious, an abuse of discretion" or "unsupported by substantial evidence" and therefore violates the Administrative Procedure Act. 5 U.S.C. §§ 706(2)(A), (E) | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. See also Appendix E for a list of laws and regulations that apply to this planning effort. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13751-157 | MA #6107 ALT B D Industry Position: Not Acceptable Reasoning: Valid existing rights should be referenced. | The Draft EIS identifies Valid Existing Rights, in Section 1.4 Planning Criteria. and Chapter 4.11.1 Assumptions and analysis can be found in Chapter 4. |
| 826 - Land Resources–Renewable | #13751-160 | MA #6107#LR-05, MR-01#No similar action#Consider the authorization of renewable energy ROWs within the KSLA on a case-by- case basis consistent with the management of other resource values and uses. See management action 2408-2411 Industry Position: Not Acceptable Reasoning: Valid existing rights should be | The valid existing rights are discussed in Chapter 1.4 Planning Criteria and Chapter 4.11.1 Assumptions |

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| Energy (6100-6108) | | referenced.#No similar action#Same as Alternative B Industry Position: Not Acceptable Reasoning: Valid existing rights should be referenced.#Consider the authorization of renewable energy ROWs within the KSLA on a case-by-case basis consistent with the management of other resource values and uses. Valid existing rights must be evaluated and new renewable leases must indemnify senior lease holders for potential impacts due to valid existing rights (for example subsidence impacts). See management actions 2408-2411. | |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13752-1 | while it indicates that reasonably foreseeable development scenarios have been developed for fluid minerals (oil and gas), as well as a Mineral Potential Report, there are no indications BLM has projected potential future wind energy development in the planning area, or the potential demand for new transmission lines. The Draft RMP/DEIS contains only limited and outdated references to renewable energy policies. The only reference to policies regarding wind energy development is in Proposed Management Act 6102, which cites the 2005 Implementation of Wind Energy Development Program and Associated Land Use Plan Amendments, but no more recent policies. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. Assumptions for analysis are found in Section 4.20.1. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13752-2 | The Energy Act of 2020 directs the Secretary of the Interior to "seek to issue permits that, in total, authorize production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects by not later than 2025, through management of public lands and administration of Federal laws."9 This goal will be unachievable if BLM advances land planning decisions that would foreclose renewable development on significant portions of the land under its management. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13752-3 | The Energy Act of 2020 directs the Secretary of the Interior to "seek to issue permits that, in total, authorize production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects by not later than 2025, through management of public lands and administration of Federal laws."9 This goal will be unachievable if BLM advances land planning decisions that would foreclose renewable development on significant portions of the land under its management. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13767-1 | Alternative B of Management Action No. 6001 ("Alternative B"), the objective of which, as stated in Table 2-1 of the Draft RMP, is to "limit geologic sequestration exploration and site characterization projection and commercial sequestration projects and facilities to the Rock Springs Uplift." Further, one of the other stated goals for Management Action No. 6001 is to "improve air quality in the planning area as practicable." By limiting commercial sequestration projects and facilities to the Rock Springs Uplift, Alternative B eliminates Frontier's ability to capture any CO2 from the AOR and transport it via pipeline to the SCS Hub - and dispose of it into Class VI wells which have been constructed with funds granted by the Department of Energy. Instead, Alternative B assumes that the pore space formations underlying the Rock Springs Uplift is sufficient storage for the entirety of the AOR without any technical subsurface characterization study publicly available to support such an assumption and without regard to the location of each emissions site relative to the Rock Springs Uplift. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13767-2 | Alternative B of the Draft RMP also aims to exclude 2,480,876 surface acres from use for rights of way, which would include BLM surface acres that are checkerboarded with private lands that host CO2 emission facilities in the AOR. Alternative B would effectively condemn pore space underlying these private lands by prohibiting these private emitters from implementing a point-source capture site at its respective facilities due to the fact that the continuous, checkerboarded BLM surface acreage will be excluded from rights of way to the federal pore space. Furthermore, the exclusion of rights of way would prevent any efforts to transport the CO2 via pipeline from its source to the storage site, whether it's the SCS Hub or the Rock Springs Uplift. These consequences make it difficult to comprehend how Alternative B "improves air quality" when almost 70 percent of the BLM surface acres are excluded from rights of way, dramatically reducing the potential for any commercial carbon sequestration projects from being commissioned in the AOR. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13779-1 | Notably, on May 10, 2023, the Biden Administration called on Congress to expand clean energy targets for federal lands by establishing targets for 2030 and 2035, building on the existing goal of permitting 25 GW of solar, onshore wind, and geothermal energy on public lands by 2025.3 However, few BLM lands are open to renewable energy development and even fewer have developed projects. This is especially noticeable when compared to lands open to oil and gas development: currently 90% of the 235 million acres of BLM land are open to oil and gas leasing, and 24,932,645 acres are actively leased for such development.4 In contrast, BLM has designated fewer than 500,00 acres as priority areas for solar development, identified 19 million acres as variance lands, on which solar development may be possible, but is more difficult, and excluded a full 79 million acres from development.5 As of November 30, 2023 only 47 renewable energy projects on approximately 35,062 acres have been approved on BLM land.6 If the United States is to meet its carbon goals, and tackle the worst impacts of climate change, the pace of renewable energy development on public lands must increase. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13779-3 | Although the BLM states that one of the goals of the RMP is to "provide opportunities for assessment and development of renewable energy facilities on public lands,"9 the RMP will make it all but impossible to develop renewable energy projects in the Rock Springs Area, and potentially throughout Wyoming given the restrictions on transmission access through Rock Springs. The plan both closes millions of acres to development and imposes prohibitively restrictive management actions on many of the acres that are nominally open to such development. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |

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| 826 - Land Resources–Renewable Energy (6100-6108) | #13779-4 | Close to 2.5 million acres would be excluded from development.11 This represents a 481% increase in areas excluded as compared to current management practices.12 Importantly, renewable energy requires enough acres open to potential development to provide the flexibility for siting decisions based on a broad array of factors ranging from wildlife habitat to interconnection access. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13779-8 | BLM fails to justify the need to impose such stringent restrictions on renewable energy development in wildlife habitat. Worryingly, BLM appears to have made no attempt to understand or incorporate the state of the science on renewable energy-wildlife interactions in developing the Rock Springs RMP and the associated EIS. Instead, BLM relies on studies related to the impacts of oil and gas development to claim that "similar displacement would be expected with the development of large-scale wind facilities." However, the development of oil and gas, which requires active, year-round management by operations and maintenance staff, is fundamentally different from wind development, which once constructed requires minimal human presence or activity (most turbines are visited by operations and maintenance staff no more frequently than once per month). As a result, it cannot be assumed that impacts of wind development will be similar to those of oil and gas. | Management actions for all four alternatives for Land resources -Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13779-9 | a recent study regarding interactions of a transplanted elk population with an operating wind facility in Oklahoma found no evidence that turbines had a significant impact on elk use of the surrounding area (Walter et al. 2006). Similarly, Johnson et al. (2000) found no effect on pronghorn use of the Phase I and II Foote Creek Rim project in Wyoming."15 Beyond these studies referenced by the BLM (which concede that displacement and avoidance due to wind energy is not significant), a host of peer-reviewed research is available specifically examining the technology-specific displacement effects of wind, solar, and transmission on a wide range of taxa, including ungulates, prairie grouse, grassland passerines, raptors, and other species. | Analysis for all four alternatives for Wildlife and Fisheries can be found in Chapter 4 specifically associated with renewable energy 4.7.2. Analysis for all four alternatives for Land resources-Renewable Energy can be found in Section 4.20. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13784-69 | 4.19.3 Lands and Realty, Alternative B: "Under this alternative, areas managed as exclusion areas for ROWs would increase to 68% of the planning area (2,480,876 acres) and areas managed as avoidance areas for ROWs would decrease to 4% of the planning area (133,903 acres). This would increase the acres in which ROWs are precluded, which would potentially increase the number of ROW facilities precluded from development." (p. 4-211) Comment: Alternative B directly conflicts with the agency's push for increased renewable energy development. This would undoubtedly decrease potential for solar development. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies. "Management actions for all four alternatives for Land resources - Renewable Energy can be found in the DEIS from management action 6100-6105. Analysis for all four alternatives can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13784-70 | 4.20.2 Renewable Energy, Alternative A: "Renewable energy development requires surface disturbance...Management Actions to minimize impacts..." (p.4-218) Comment: The two paragraphs are verbatim from page 4-217. Remove from either page. | Section 4.20.2 p. 4-217 paragraph describes land usage restrictions on renewable energy development sites in the planning area and p. 4-218 paragraph describes Wind turbine structures intrusive in certain view sheds for cultural, historical or paleontological resources. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13784-71 | "The granting of ROWs is crucial to supporting national energy plans that include developing renewable energy, "(p. 4-220) Comment: This sentence indicates the agency and administration's interest in increasing renewable energy, but the Preferred Alternative B will directly conflict with this process. | See Chapter 2.2.6 of the DEIS, section Renewable Energy, Management Actions 6100-6105, for analysis of a full range of alternatives regarding potential management decisions in these areas. Impacts from each alternative can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13784-72 | "ACEC habitat prescriptions to manage land development, occupancy, and view sheds would limit renewable energy developments. The placement of renewable energy facilities, structures, and transmission/pipe lines; allowance of surface disturbing activities associated with construction, and vehicle access to development sites would be impacted adversely by those restrictions." (p. 4-221) Comment: Again, the BLM has selected Alternative B as the Preferred Alternative, yet directly conflicts with the statement mentioned above. Alternative B increases ACEC, and prohibits surface disturbing activities throughout the Plan Revision. | Management Actions 7400 through 7570 describe management within ACECs and Chapter 4.20. See Renewable Energy, Management Actions 6100-6105, for analysis of a full range of alternatives regarding potential management decisions in these areas. Impacts from each alternative can be found in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13784-73 | "The management actions for renewable energy development under this alternative are similar to Alternative A, except ROW exclusion areas would be greater (2,480,876 acres excluded, which is 2,054,167 more acres than Alternative A." (p. 4-224) Comment: The statement is incredibly misleading. The two alternatives A and B are not similar in any way regarding renewable energy in ROW areas. Alternative B will be nearly impossible to develop with the substantial exclusion area. | Impacts to renewable energy development can be found in Section 4.20 Renewable Energy |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13787-79 | MA #6107 LR-05, MR-01 No similar action Consider the authorization of renewable energy ROWs within the KSLA on a case-by- case basis consistent with the management of other resource values and uses. See management action 2408-2411 Industry Position: Not acceptable Reasoning: Valid existing rights should be referenced. No similar action Same as Alternative B Industry Position: Not acceptable Reasoning: Valid existing rights should be referenced. Consider the authorization of renewable energy ROWs within the KSLA on a case-by-case basis consistent with the management of other resource values and uses. Valid existing rights must be evaluated and new renewable leases must indemnify senior lease holders for potential impacts due to valid existing rights (for example subsidence impacts). See Mas #2408-2411. Resource: Land Resources (LR) - Rights-of-Way and Corridors (6200-6210) | Information regarding valid existing rights is found in Chapter 2.2.3 Alternatives Development Process and the analysis for the alternatives can be found in section Chapter 4.3.2 The Draft EIS identifies Valid Existing Rights, in Section 1.4 Alternatives Development and Chapter 4.11.1 Assumptions and analysis can be found in Chapter 4. |

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| 826 - Land Resources–Renewable Energy (6100-6108) | #13791-2 | areas that are open to wind energy in development under Alternative B are adjacent to existing transmission lines; only one north-south transmission line accesses the area protect by the proposed ACEC which would preclude wind development and the draft EIS is silent as to the demand for wind energy development in this area. Existing development along the I-80 corridor, with existing infrastructure, would continue to be allowed under Alternative B, thus protecting the potential economic and environmental benefits of industrial-scale wind energy development. | The Draft EIS identifies all ACEC proposals and evaluation of relevance and importance criteria (Appendix C), proposed management actions (7400-7570), and all impacts from the proposed alternatives (Chapter 4). |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13848-3 | (1) BLM's decision in MA#7017 to manage historic roads and trails that have not been designated by Congress as part of the National Historic Trail system as requiring vast right-of-way exclusion areas and related restrictions; and (2) BLM's decision in MA#5411 to prohibit on a case-by-case basis surface disturbing activities that create a moderate to strong visual contrast in VRM Class III and Class IV areas, if the former "can be observed from other areas managed consistent with VRM Class I and II (e.g. wind development)." These restrictions collectively may create insuperable barriers to wind development on private or federal checkerboard lands in the RSFO. | A range of alternatives were developed in Table 2-1 and the impacts are described in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13859-1 | Section 1.3.1 of the DEIS identifies renewable energy development and associated transmission infrastructure as an issue addressed in the RMP planning process. However, the DEIS does not consider or reference relevant current policies in Executive Order (EO) 14008 Tackling the Climate Crisis at Home and Abroad or the Energy Act of 2020 (Division Z of P.L. 116-260) and associated rules, both of which provide policy and direction for renewable energy development on federal land. The BLM should acknowledge and fully consider EO 14008 and the applicable provisions in the Energy Act of 2020 in their NEPA review and fully integrate these into their analysis. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." The Draft RMP analyzed four alternatives that are under consideration and the range of alternatives and the impacts are described in Chapter 4. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13865-37 | 11. Renewable Energy Alternative B will significantly impair the ability to operate existing renewable energy and the development of new renewable energy projects. The land use, time and distance, and travel prohibitions and restrictions under Alternative B will potentially limit access to renewable energy development sites, vehicular routes to renewable energy sites, the placement of renewable energy facilities, structures, and transmission lines and pipelines. The restrictions in Alternative B will also potentially limit site preparation and construction activities associated with renewable energy development and have operational restrictions on renewable energy projects. Future renewable energy projects could require additional impact minimization measures as impacts become known and better understood. Prohibiting renewable energy projects in big game crucial winter range and parturition habitat, raptor concentration areas, currently mapped unique habitats, or new areas identified as part of site-specific investigations would preclude renewable energy development in those areas. | The Draft RMP analyzed four alternatives that are under consideration and the range of alternatives and the impacts are described in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13865-64 | Wind stipulations: Wind turbine colors are regulated via the Federal Aviation Administration (FAA) and any variation would require approval from them for a color change. This is due to safety concerns for aircraft. FAA Advisory Circular (AC) 70/7460-1M, chapter 13, contains current guidance on marking and lighting standards for wind turbines. "The recommended marking and lighting of these structures is intended to provide day and night conspicuity and to assist pilots in identifying and avoiding these obstacles" (USDOT 2020). The FAA strongly recommends wind turbine masts, blades, and nacelles be painted a shade of white between Pure White and Light Grey. Further, the blades or blade tips cannot be painted to camouflage wind turbines with the surrounding terrain. | Appendix A References Best Management Practices for wind, see A.2.7 |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13865-65 | o For wind to utilize topography, turbines need to be sited along hill and ridge tops where the most stable and economical wind flows exist. Turbines also need to be sited perpendicular to general wind flow; if they are not sited in this manner, they create wind currents for downstream turbines that will negatively affect productivity. Grouping turbines would cause many acres of additional disturbance at a wind site because they need to be connected by infrastructure such as roads and buried power and data cables. Consequently, it usually less invasive as it relates to acreage to create strings of turbines. | Appendix A References Best Management Practices for wind, see A.2.7 |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13908-8 | The science evaluating impacts of wind and solar energy to big game are lacking, which should be reflected in the decision-making process. * Impacts of wind energy to antelope are variable although most studies have identified some level of avoidance behavior near turbines. * Poorly sited solar facilities can have significant negative impacts on antelope movement. We recommend considering the following scientific publications and adding additional supporting information to the EIS as necessary. Wind Energy Development Milligan, M. C., Johnston, A. N., Beck, J. L., Smith, K. T., Taylor, K. L., Hall, E., ... & Kauffman, M. J. (2021). Variable effects of wind-energy development on seasonal habitat selection of pronghorn. Ecosphere, 12(12), e03850. | Management actions 4400-4436 Fish and Wildlife describe management within Big game crucial winter range habitat. The analysis for the alternatives can be found in section 4.20 Renewable Energy and 4.7 Wildlife and Fisheries. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13908-9 | Increased displacement and avoidance was documented for antelope in close proximity to turbines. * A development threshold may exist and once exceeded may result in negative impacts of wind energy to antelope. * Wind energy development may be a less severe and less consistent impact on antelope compared to oil and gas development for other ungulates but nuanced impacts were documented. Milligan, M. C., Johnston, A. N., Beck, J. L., Taylor, K. L., Hall, E., Knox, L., ... & Kauffman, M. J. (2023). Wind-energy development alters pronghorn migration at multiple scales. Ecology and Evolution, 13(1), e9687. | Management actions 4400-4436 describe Fish and Wildlife describe management within Big game crucial winter range habitat. The analysis for the alternatives can be found in section 4.20 Renewable Energy and 4.7 Wildlife and Fisheries.. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13908-10 | Antelope continued to migrate through wind energy facilities but made important behavioral adjustments relative to turbines including: o Avoided turbines for stopover sites seasonally. o Selected areas farther from turbines seasonally. o Moved more quickly near turbines in spring. o Reduced fidelity to migration routes relative to wind turbines under construction seasonally. * Documented impacts could influence long-term migratory success and survival of antelope. Smith, K. T., Taylor, K. L., Albeke, S. E., & Beck, J. L. (2020). Pronghorn winter resource | Management actions 4400-4436 Fish and Wildlife describe management within Big game crucial winter range habitat. The analysis for the alternatives can be found in section 4.20 Renewable Energy and 4.7 Wildlife and Fisheries. |

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| | | selection before and after wind energy development in South-Central Wyoming. Rangeland Ecology & Management, 73(2), 227-233. | |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13908-11 | Winter survival was not significantly influenced by exposure to wind energy development during their study period (3 winters). o Survival increased as distance from major roads increased and time spent in sagebrush. Solar Energy Development Sawyer, H., Korfanta, N. M., Kauffman, M. J., Robb, B. S., Telander, A. C., & Mattson, T. (2022). Trade-offs between utility-scale solar development and ungulates on western rangelands. Frontiers in Ecology and the Environment, 20(6), 345-351. * Research was focused on antelope movement at the Sweetwater Solar facility, which is located on BLM-lands within the RSFO. * Sweetwater Solar facility is located within Antelope Crucial Winter-Yearlong Range. * Solar facility is a barrier to antelope, blocking access and reducing connectivity to formerly available habitats. o The single ~570-acre facility impacted 69% of resident antelope, 86% of local migrants, and 57% of Opal herd migrants. | Management actions 4400-4436 Fish and Wildlife describe management within Big game crucial winter range habitat. The analysis for the alternatives can be found in section 4.20 Renewable Energy and 4.7 Wildlife and Fisheries.. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13911-13 | The number of acres designated as ROW exclusion will have a significant impact on resource development, recreation, and livestock grazing, as well as conflict with current federal policy to advance renewable energy on federal lands. The Proposed RMP's overarching goal is to: "Manage public lands to meet transportation and ROW needs consistent with goals and objectives of other resources while supporting the national energy plans and policies." Compare DEIS at 2-115 (Mgmt. Action #6202 and Maps 2-22 and 2-24) with id. at 2-114 (Goal LR-06). But Preferred Alternative B directly conflicts with the Energy Act of 2020 and Executive Order 14008. The Energy Act of 2020 established a minimum goal of "authoriz[ing] production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects [on public lands] by not later than 2025." 43 U.S.C. § 3004(b). Executive Order 14008 sets the goal of reaching 100 percent carbon pollution-free electricity by 2030, net-zero emissions by 2050, and doubling renewable energy production on public lands by 2030. However, this goal will be difficult, if not impossible, to obtain if the BLM closes public lands to any new development or ROWs. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13923-23 | For MA# 6100-6108, we support Alternative B with the following modification. ? MA #6101 We request that the BLM coordinate specifically with the Wyoming Game and Fish Department when considering the development of renewable resources on public lands. This will ensure that any development will not hinder wildlife or their habitat and/or movements. Further, project proponents should identify important or sensitive habitats and design projects to avoid and/or minimize impacts on these habitats. Any development that does occur should not prevent other land uses such as livestock grazing or recreational activities. | Described in Section 1.4 Planning Criteria. "The RMP will recognize the State's responsibility and authority to manage wildlife. The BLM will consult with the Wyoming Game and Fish Department. Coordination with other agencies is described in Section 1.4 and Table 1-2 of the EIS for the scope of this planning effort. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13923-24 | Additionally, we recognize that the BLM is currently conducting a programmatic Environmental Impact Assessment to revise the Western Solar Plan. If Wyoming is included in this plan, we support amendments to the RSFO RMP to manage future solar development that minimizes impacts to wildlife resources. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13925-6 | The draft RMP Alternative B also conflicts with the Energy Act of 2020 and Executive Order 14008. The Energy Act of 2020 established a minimum goal of "authoriz[ing] production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects [on public lands] by not later than 2025." 43 U.S.C. § 3004(b). Executive Order 14008 sets the goal of reaching 100 percent carbon pollution-free electricity by 2030, net-zero emissions by 2050, and doubling renewable energy production on public lands by 2030. The draft RMP makes new solar and wind energy unavailable for more than half of the planning area, because these facilities will not meet VRM II objectives, are prohibited in ACECs, and rights-of-way are necessary to link solar components together and then tie into transmission lines. The draft RMP is an object lesson in how no source of energy occurs without environmental impacts. | Described in Section 1.4 Planning Criteria. "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies. "Management actions 6100-6105, for all four alternatives for Lands and Renewable Energy can be found in the DEIS. The Impacts to the alternatives are described in Chapter 4. |
| 826 - Land Resources–Renewable Energy (6100-6108) | #13943-12 | MA #6101 We request that the BLM coordinate specifically with the Wyoming Game and Fish Department when considering the development of renewable resources on public lands. This will ensure that any development will not hinder wildlife or their habitat and/or movements. Further, project proponents should identify important or sensitive habitats and design projects to avoid and/or minimize impacts on these habitats. Any development that does occur should not prevent other land uses such as livestock grazing or recreational activities. Additionally, we recognize that the BLM is currently conducting a programmatic Environmental Impact Assessment to revise the Western Solar Plan. If Wyoming is included in this plan, we support amendments to the RSFO RMP to manage future solar development that minimizes impacts to wildlife resources. | The coordination with other local, state and federal agencies can be found in Chapter 1.5 and Table 1-2. Management actions 6100-6105, for all four alternatives for Lands and Renewable Energy can be found in the DEIS. the Impacts are described in Chapter 4. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #317-2 | However, expanding development on acreage with valid existing rights is made difficult as Alterative B would also place 2,480,876 acres as exclusion areas for rights-of-way and another 133,903 acres as avoidance. Building the necessary infrastructure to existing leases would be almost impossible across much of the field office. Companies would not be able to get electricity infrastructure built to a site, necessary to run a well; nor would they be able to install distribution pipelines necessary to get product from a site to market. When one continues to add on the additional layers of restrictions and exclusions in Alternative B, developing any new oil and gas resources in this field office will be nearly impossible. | Management actions for all four alternative are identified in the DEIS management action 6201 for lands available for ROWs. Chapter 4.19 identifies impacts analyzed for all four alternatives. |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #548-2 | The draft RMP fails to take into consideration the responsible development of future needs in the area. We could essentially be "painting ourselves into a corner" if right-of-ways are restricted in so much of the area as Alternative B details. How will the next powerline cross through the area if it is not allowed? Will ranchers be able to conserve water by piping irrigation ditches, or will this also be outlawed? Will existing right-of-ways be renewed, or will they be terminated and infrastructure required to be removed? | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #550-6 | Similarly, Alternative B would increase right-of-way exclusion areas from about 427,000 to 2,481,000 acres-an increase of two million acres, which would represent almost half the entire boundary area. Lands open to new rights-of-way (ROW) would decrease from 2.4 million to just 1 million. ROWs are critical to supporting a variety of projects, not just on public lands, but private and state lands adjacent to public lands, including the checkerboard land ownership pattern that dominates the central portion of the RMP area. Without adequate access across public lands for linear ROWs, productive economic uses of these private and state parcels becomes limited or in some cases impossible. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #551-4 | Rights of Way -- Proposed Management Actions 5104, 6015, 6201, 6205, 6206- Map 2-22 Rights of Way Alternative B. A disturbing aspect of the RMP's Alternative B are the management actions contemplated to implement Map 2-22, Rights of Way. The RMP seems to have certain internal inconsistencies, as Map 2-22 would appear to prevent any new right of way being created along the I-80 corridor, regardless of its purpose. For example, in management action 6206, the RMP proposes to "Eliminate the existing corridor identified in the WWEC ARMPA/ROD (2009) east of Flaming Gorge in the planning area (126-218)" Management action 6210 would "designate new ROW corridor (WPCl)[Wyoming Pipeline Corridor project] as shown on Map 2-22." Map 2-22 appears to create an energy corridor along 1-80 and then another corridor running east=west somewhat south ofl-80. There is no analysis in the RMP how this lack of any corridors other than the two specified would affect long planned expansions for the trona industry in Southwest Wyoming. There is no analysis of how restricting right of way corridors in this way will affect the local economy or of any adverse effects of taking this approach. Map 2-22 also appears difficult to reconcile with BLM's own Instruction Memorandum IM 2022-041 and 43 CFR Part 2800, which encourages the BLM to "authorize the BLM to issue ROWs to geologically sequester CO2 in federal pore space, including for necessary physical infrastructure and for the use and occupancy of the pore space itself." The RMP, through Map 2-22 and proposed management actions 6206 and 6210, would appear to prevent CO2 pipelines from being constructed in furtherance of IM 2022-041. | See Maps 2-22, 2-23, and 2-24 for alternatives. Chapter 4.19 identifies impacts analyzed for all four alternatives. See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #551-5 | The proposed management actions to restrict BLM rights of way would also severely hamper residents of Southwest Wyoming who own land that is landlocked. State law allows for the establishment of private roads where the landowner has no legal access. Wyoming state law provides for a process to establish private roads where landowners are landlocked. W.S. 24-9-1010 et seq. For example, several residents who live in Uinta county, Wyoming in Township 13 and Township 14 North, Range 116 West, have to cross BLM parcels to get to a county road. Although these landowners have easements across private property, they have not been granted official rights of way by the BLM. Alternative B would prevent them from ever obtaining rights of way. effectively mean that these residents, who now enjoy legal access for their property, would suddenly find themselves landlocked with no right to leave or return to their homes. The loss of legal access would be devastating to the value of these homes, as a house without legal access is difficult to market, sell or finance. Adoption of Alternative B's management actions with respect to rights of way would amount to a taking under the 5th amendment to the U.S. Constitution.The RMP does not analyze or address in any fashion the effect of landlocking residential parcels under Alternative B. The management actions contemplated under Alternative B with respect to Right of Way are arbitrary and capricious. I request that the BLM select Alternative A for the Rights of Way map, Map 2-21. | Management actions for all four alternatives are identified in the DEIS management action 6000 for access needs. Chapter 4.19 identifies impacts analyzed for all four alternatives. Refer to Glossary for Authorized/Authorized Uses, land locked, and Right-of-way grant |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #7302-1 | It is not clear to WYDOT that the RMP considers state laws, transportation plans, or WYDOT and FHWA perspectives regarding the RMP's potential impacts to I-80 ROW. As stated in the RMP, BLM land use plans must be consistent with the officially approved plans, policies, and programs of other federal agencies and state and local governments (p.69). Table 1-2 shows that transportation plans, laws, and agencies were not considered in the drafting of this RMP (p.69). For example, W.S.§31-5-1601 affords WYDOT discretion over highway ROW use for developing ORV routes and crossings, and it is unclear if Alternative B in the RMP attempts to exclude this type of new use within highway ROW. WYDOT requests that the BLM RSFO honor the cooperative relationship and aforementioned interagency agreement and take state law, transportation plans, and agency perspectives into consideration when developing land management plans affecting highway ROW. | See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #7302-2 | WYDOT is specifically concerned with Management Actions (MA) #6200-6210 pertaining to Rights of Way and Corridors. Inconsistencies exist in the RMP between the BLM's preferred Alternative Band ROW that would be designated as 'avoidance' versus 'exclusion,' as well as what these designations mean for new use within highway ROW (pipelines, utilities, fiber, ORV trails and crossings, widened roadways, high-occupancy vehicle lanes, truck pullouts, and so forth). In MA #6205, Alternative B appears to be consistent with the no action alternative (Alternative A), designating approximately 40 miles ofl-80 ROW between Green River and Point of Rocks as an avoidance area for major utility lines (p. 185). However, the map referenced for Alternative B (Map 2-22 in Appendix V) contrasts with the map for Alternative A (Map 2-21), and shows many areas along I-80 as exclusion | See Management Action 7107 for proposed actions relating to Exclusion Areas along I-80 related to Eligible but not Designated National Historic Trails. Management actions for all four alternatives are identified in the DEIS management action 6206 for rights of way corridors considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |

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| | | areas. As referenced in section 4.19.3, the exclusion areas for ROW increase to 68 percent of the planning area, further precluding ROW as well as facility development within ROW (p. 526). | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #8686-1 | Removing 71% of the areas covered by Plan B from new rights-of-way for powerlines, pipelines and maintained roads is absurd! This inhibits industrial activities on state and private land. Very Unacceptable! | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | See Glossary for a definition of 'surface disturbing activities. Also, see Appendix A in the DEIS for BMPs considered |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13210-7 | 7. There is great concern by the Task Force with the footprint that comes from large-scale wind and solar utility projects on public lands. Concerns include obstructed viewshed, habitat fragmentation, loss of habitat, loss of acres for other uses, loss of access, and the inability to manage for the Multiple Use and Sustained Yield Act. | Management actions for all four alternative are identified in 6104 in the DEIS for considerations of renewable energy projects. Chapter 4.20 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13210-15 | 15. The Task Force recognizes the importance that rights-of-way play on public lands. The designation of allowance, avoidance and exclusion have direct effects to every acre within the RSFO-public, state and private. The BLM should strive for the appropriate balance in rights-of-way designations to achieve an outcome which allows for continued economic development activities within the field office upon which the communities rely, while also recognizing the role these designations contribute to resident's fulfillment while recreating, hunting, fishing, exploring and all the other multiple uses these varied lands offer. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13218-3 | In addition, & quote approximately 2,480,876 acres would be designated as right-of-way exclusion areas, & quote which is a 481% increase in acres compared to Alternative A. The increase in right-of-way exclusion areas would limit future access to mineral exploration and development sites and could restrict the placement of facilities associated with mineral exploration, development, and operations. Rights-of-way are extremely important to mineral exploration and development, as they are necessary for pipelines, transmission lines, communication facilities, and roads. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13364-1 | The practical consequences of Alt.Bare that Dominion Energy will be: (1) Required to forge a ROW path around federal lands to serve customers, at significant cost to ratepayers, new homeowners, and developers; and/or (2) Prevented from providing service altogether, adversely impacting new residential, commercial, and industrial development in Rock Springs. Approval of Alternative B will unnecessarily and significantly increase costs, and obstruct future development in and around Rock Springs. Alt. B penalizes the most impmiant Stakeholders12 involved-- the people who actually live in the Zone. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13446-3 | Wyoming is one of the largest energy producers in the nation. The proposed plan effectively undermines the functionality and independence of the nation as a whole by the draconian restrictions set forth in the RPM. Right-of-way controls, regulation of surface disturbance, removal of lease options and controls of existing perimeters cut any sustainable viability for Wyoming’s gas and oil production. The reverberations and consequences of such decisions will last for decades and cause more suffering than should be tolerated. (https://www.eia.gov/state/?sid=WY) | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13477-1 | Restrictive Land Use: The proposed ACECs and rights-of-way exclusion areas could severely hamper our ability to maintain and expand essential energy infrastructure, impacting service reliability and consumer costs. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-1 | This unique supply of natural soda ash, exclusively found in areas administered by the BLM's Rock Springs and Kemmerer Field Offices, is essential to the U.S. production of glass, electric vehicle ("EV") batteries, photovoltaic solar panels, and other prioritized domestic products. Without specific changes to the Draft RMP-especially those related to Rights-of-Way ("ROWs") and pre-existing Corridors-soda ash projects like Project West will be unable to proceed as planned. This is particularly impactful since our soda ash project will advance U.S. energy goals and the administration's priorities. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-4 | Alternative A or Alternative D Alternative A and D both adhere to the multiple-use mandate under FLPMA. In Alternative B, elimination of the WWEC corridor conflicts with Section 368 of the Energy Policy Act of 2005, and MA 6206 cannot be read consistently with MA 6201. See also MA 6201, 7017, Map 2-22. | See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-5 | MA 6201 (ROW Exclusion Areas) Alternative A Alternative A complies with the multiple-use mandate under FLPMA by considering the production of soda ash and allowing responsible development within established routes and corridors in previously disturbed areas. In Alternative B, MA 6201 cannot be read consistently with MA 6206 and 6210. | Management actions for all four alternatives are identified in the DEIS management action 6201. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-6 | MA 6207 (ROW Areas) Alternative A or Alternative D Alternative B improperly deletes portions of the WWEC and WPCI Corridors and conflicts with the retention and adoption of Corridors in MA 6206 and 6210. Alternative B also undermines BLM's longstanding ROW policies and objectives. | Management actions for all four alternatives are identified in the DEIS management action 6207. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-7 | MA 6210 (WPCI Corridor) Alternative A or Alternative D In Alternative B, MA 6210 cannot be read consistently with MA 6201. See also MA 6206, 6207. | See Management Action 7107 for proposed actions relating to Exclusion Areas along I-80 related to Eligible but not Designated National Historic Trails. Management actions for all four alternatives are identified in the DEIS management action 6206 for rights of way corridors considered available for ROWs. Please see Maps 2-21, through 2-24. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-10 | A. BLM's Proposed Alternative B ROW Exclusion Areas Directly Conflict with BLM's Existing ROW Corridors and ROW Policies and Objectives. Alternative B's ROW Exclusion Areas are materially at odds with BLM's policies and objectives. As a threshold matter, BLM's expressly stated objective from the BLM Rights-of-Way Manual 2801 (the "BLM ROW Manual") is to "[r]ecognize that ROWs are a principal or major use of the public lands."4 The BLM ROW Manual further provides policy and program direction for BLM's management of ROW grants under the multiple-use mandate5 of the Federal Land Management Policy Act ("FLPMA"). BLM's ROW objectives and policy thoughtfully encourage the co-location of ROWs and the use of ROW corridors. | See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-11 | Pursuant to The excessive ROW Exclusion Areas in Alternative B conflict with BLM's policies to "actively encourage" the use of corridors and to "minimize the proliferation of" separate ROWs.9 Alternative B states that specific corridors identified in the West-Wide Energy Corridor ("WWEC") Approved Resource Management Plan Amendment ("ARMPA") Record of Decision would be retained, except for WWEC 126-218 near Flaming Gorge.10 Additionally, the proposed ROW Exclusion Areas would affect the designated Wyoming Pipeline Corridor Initiative ("WPCI") corridor and existing Wyoming Department of Transportation ROWs. Some of the exclusion areas for ROWs near trails overlap significantly with the WWEC and WPCI Corridor. Alternative B's ROW Exclusion Areas within these existing corridors makes these corridors unusable and encourages new ROWs outside of designated corridors,11 which will cause enviro | See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-12 | B. The Proposed ROW Exclusion Areas Conflict with Section 368 of the Energy Policy Act of 2005 and Associated Supporting Documents. The WWEC was established under Section 368 of the Energy Policy Act of 2005 ("EPAct"), 42 U.S.C. § 15926, to support and encourage energy development, including the co-location of oil, gas, hydrogen, and other pipelines, and electricity transmission and distribution facilities. The specific location of the corridors was analyzed by the BLM, the U.S. Forest Service, and the U.S. Department of Energy to minimize environmental harm. Exclusion areas were intentionally not a material part of the agreed upon agency procedures12 as such breaks would create "pinch points"13 in the corridors, which would make them less useful if not completely unusable. The BLM, along with other federal agencies, must consider the following four principles when evaluating Section 368 corridor revisions, deletions, and additions and may amend or revise land use plans involving Section 368 corridors only if the agency meets the requirements of the EPAct Section Section 368 of the Energy Policy Act of 2005 as Required by the Settlement Agreement in Wilderness Society v. United States Department of the Interior, No. 3:09-cv-03048-JW (D. N.D. Cal.), https://www.blm.gov/policy/im-2014-080 (noting Congress's policy guidance established in Section 503 to "support the efficient use of the public lands"). | See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-13 | The BLM should not adopt Alternative B's MA 7017, because BLM has not addressed the required principles above, nor has BLM coordinated with the other federal agencies as required to revise or delete portions of the WWEC.16 The ROW exclusions and proposed deletions to the WWEC in Alternative B do not follow the required interagency framework or protocols agreed to by the BLM for revising and deleting Section 368 corridors. Here, in the context of the Draft RMP, if BLM adopts Alternative B's MA 7017, then BLM will have failed to satisfy those obligations. | See the range of alternatives for management action 7017 in the DEIS. Chapter 4 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-15 | In Alternative B, the Draft RMP offers no explanation of how existing impacts and prior disturbances will be considered in requests for new infrastructure within the ROW Exclusion Areas. In contrast, Alternative D allows historic roads and trails to be managed according to their historical context and designates actions within 500 feet of a contributing segment of road or trail as a ROW avoidance area.24 Alternative D also allows impacts to setting to be analyzed on a case-by-case basis for highly visible projects.25 | See planning criteria 1.4 , this plan will recognized valid existing rights |
| 827 - Land Resources–Rights-of-Way | #13512-16 | Temporary impacts should be considered in determining whether to grant new infrastructure requests on a case-by-case basis, rather than a blanket exclusion, consistent with current and past practice. For example, an underground pipeline will not have permanent visual impacts but will require only some temporary impacts for | See the glossary in the DEIS for the definition of Exclusion area and NSO. |

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| and Corridors (6200-6210) | | installation. As such, Project West requests that BLM remove or clarify the reference to "no surface occupancy"26 in the definition of "exclusion area" in the Draft RMP. Otherwise, "no surface occupancy" in the definition of exclusion area would be contradictory and confusing as including the phraseology of "no surface disturbance" without noting the exception could improperly prohibit temporary construction activity on the surface without justification. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13512-17 | The ROW Exclusion Areas in Alternative B fail to recognize ROWs as a major use and do not allow for case-by-case exceptions. Alternative A, in contrast, meets the BLM objective to recognize ROWs as a principal or major use and provides for 68% of ROWs to be open, 20% avoidance areas and 12% exclusion areas while fully employing mitigation strategies.27 Alternative B is unique in that it proposes only 27% of ROWs to be open, 4% to be avoidance areas and 69% to be exclusion areas. This approach is not consistent with nearby, and relatively recent, BLM jurisdictions' RMP amendments that took a more reasoned approach to maintaining corridors and ROWs, specifically: * The Kemmerer RMP, approved in 2010, did not include an exclusion for historic roads and trails within the utility corridor as part of that RMP.28 24 Draft RMP at 2-148 (MA 7017, Alternative D). 25 Id. 26 "No Surface Occupancy" is defined in the Draft RMP and is a "stipulation [that] can be used to prohibit other surface disturbing or disruptive activities . . .[.]" Draft RMP at GL-20. 27 Draft RMP, Table 1 Comparison of Land Use Restrictions and Allocations at pp.ES-5, ES-6; BLM RSFO Draft RMP PowerPoint, September, 2023 Public Meeting, at p.9 (shows percentages); see also BLM ROW Manual Section 2801(2)(A). 28 See Record of Decision and Approved Kemmerer Resource Management Plan, at 2-42 (May 2010) (Decision no. 6008). | See the range of alternatives for management actions for 6201 and 7017 in the DEIS. Chapter 4 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13542-48 | MA#6209. Alternative B. 2-117 Constructing pipelines, power lines, and other utilities adjacent to or collated within existing ROWs to reduce new surface disturbance is preferred, however it is not always technically feasible. By not allowing "where feasible" in Alternative B's language, the BLM's requirement could lengthen and increase surface disturbances from new construction projects. Please analyze and disclose to the public the scientific justification for any restrictions contemplated under this management action and develop then select an alternative that allows for exceptions, waivers, and modifications based on the best available information on the ground. | See the range of alternatives for management action 6209 in the DEIS. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-33 | Alternative Bis in contradiction to EO 14008 by creating energy corridors within proposed ROW exclusionary areas. According to Section 4.22.5 of the DEIS RMP, "Renewable Energy Stakeholders would view this alternative much less favorably than Alternative A. In particular, the very high acreage of this alternative that is in ROW exclusion areas (2,480,876 acres versus 426,709 acres under Alternative A) would make siting of wind energy projects and development of power transmission lines from areas with wind development difficult". According to Alternative B Map 2-18 and Table 1, over 2,148, 902 acres of land would be a Class II VRM, which would create obstacles in siting new renewable energy projects. The ROW exclusion areas will also prohibit critical transmission lines critical for wind and solar projects under Alternative B. The BLM failed to take into consideration future renewable energy projects. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Also management actions for all four alternatives are identified in the DEIS for management actions 5400, see maps 2-17, through 2-20. Chapter 4 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-34 | ROW exclusion areas should be removed from the checkerboard area and only occur in locations where adverse environmental effects can occur such as areas with special designations like WSAs or ACECs. | See the range of alternatives for management action 6201 in the DEIS. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-36 | While the BLM suggests that ACECs don't affect mineral leasing, they impact ROW exclusion areas (VRMs, NSOs, etc.) which in tum prevent access roads and pipelines to mineral sites. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Also management actions for all four alternatives are identified in the DEIS for management actions 5400, see maps 2-17, through 2-20 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-39 | Finally, the BLM's conclusion that impact to livestock grazing would not change between Alternative A and Alternative Bis false. See DEIS at 4-178, 4-259. Many of the ACEC's have a no surface occupancy "NSO" designation and this will impact permitted livestock owners' ability to drill for water wells within their grazing allotments. See DEIS at Append. V-4 - V-7. In addition, VRM Class II designations, ROW exclusions, and prohibition of surface disturbing activities within an ACEC would impact the ability of permittees to develop range improvements, such as fences, wells, or other water developments. See id. At 2-210 (Mgmt. Action #7556), 4-179. Some of the proposed ACECs also call for closure of grazing allotments and/or prohibition of grazing within certain pastures. See id. At 2-181 (Mgmt. Action #7433), 2-182 (Mgmt. Action #7438), 2- 184 (Mgmt. Action #7443). | Impacts from proposed ACEC designations are adequately addressed in Chapter 4.21, with management actions for each proposed ACEC found in management actions 7400-7570. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-48 | In addition, the BLM arbitrarily and without supporting data designates ROW exclusion areas within 5-miles on either side of a historic trail (id. at 2-143 (Mgmt. Action #7002)), for areas with significant rock sites and their viewsheds (id. at 2-91 (Mgmt. Action #5100)), among others. | See the range of alternatives for management action 7002 in the DEIS. Impacts from each alternative can be found in Chapter 4. |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-49 | The number of acres designated as ROW exclusion will have a significant impact on resource development, recreation, and livestock grazing, as well as conflict with current federal policy to advance renewable energy on federal lands. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-50 | The amount of ROW exclusion and avoidance areas identified under Preferred Alternative B specifically conflicts with the Proposed RMP's overarching goal to: "Manage public lands to meet transportation and ROW needs consistent with goals and objectives of other resources while supporting the national energy plans and policies." Compare DEIS at 2-115 (Mgmt. Action #6202 and Maps 2-22 and 2-24) with id. at 2-114 (Goal LR-06). It also directly conflicts with the Energy Act of 2020 and Executive Order 14008. The Energy Act of 2020 established a minimum goal of "authoriz[ing] production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects [on public lands] by not later than 2025." 43 U.S.C. § 3004(b). | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-51 | Executive Order 14008 sets the goal of reaching 100 percent carbon pollution-free electricity by 2030, net-zero emissions by 2050, and doubling renewable energy production on public lands by 2030. However, this goal will be difficult, if not impossible, to obtain if the BLM continues its direction of closing public lands. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-52 | With the proposed closure dates of the coal plant facilities in Wyoming and renewable energy development planned in the future to replace it, such widespread ROW exclusion areas will result in the inability to provide sufficient power to Wyoming residents and others into the future. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-53 | In addition to completely contradicting this administration's energy plans and policies, the ROW exclusion areas also conflict and will significantly impact other development and use of federal land. It would limit future access to mineral exploration and development sites (id. at 4- 136) and to grazing allotments by federal permittees. The Preferred Alternative B ROW exclusion areas will have a direct and immediate impact on currently proposed projects. For example, the ROW exclusion areas will impact an existing Trona mine project that is currently working with the BLM Kemmerer Field Office. The DEIS is proposing ROW exclusion areas in Township 18 North, Range 108 West, Sections 4, 8, and 6 that will impact the future site for a Trona mine processing facility. The applicant Pacific Soda is proposing their plant in a location that will be less impactful to the environment but located within these ROW exclusion areas. The water line for the project will also be impacted in Township 18 North, Range 108 West, Section 2, which the DEIS is proposing as a ROW exclusion area. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-54 | Alternative BROW exclusion areas will also impact an economic diversification project in Sweetwater County. The County has been developing a large industrial complex south of the airport that will help to diversify the County's economy. The site requires access and development of infrastructure across federal lands that are currently proposed for ROW exclusion, including: Sections 22, 26, 28, 32, and 34 of Township 19 North, Range 108 West; and Sections 2, 6, 8, 10, and 14 of Township 19 North, Range 108 West. The ROW exclusion will prohibit construction of this future industrial complex. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Also see Appendix N for the socioeconomic report. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-55 | In addition, Preferred Alternative B's proposed ROW exclusion areas fall within the Checkerboard. DEIS at Map 2-22. Sweetwater County objects to designating any ROW exclusion areas within the Checkerboard due to the impact it will have on the alternating sections of private lands and state lands. ROW exclusion areas infringe on private property rights by preventing the ability to access the private and state lands and to develop them when infrastructure (i.e. roads, pipelines, electric lines, etc.) cannot be placed on the neighboring public lands. This raises the question of whether the ROW exclusion, in addition to other restrictions such as VRM Class II, within the Checkerboard would result in the taking or partial taking of private property. See North Mill Street, LLC v. City of Aspen, 6 F.4th 1216, 1224 (10th Cir. 2021) (When regulations "deprive an owner of 'all economically beneficial use' of her property' it will be recognized as a taking." (quoting Lingle v Chevron US.A., Inc., 544 U.S. 528,537 (2005)). | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13585-56 | Sweetwater County requests the BLM to remove all ROW exclusion areas within the Checkerboard. The County further supports Alternative Das it relates to the identification of ROW exclusion areas in areas where it is appropriate (i.e. within WSAs). DEIS at Map 2-24. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13590-1 | The BLM's preferred alternative B with respect to rights of way (management actions 6200-6210) and its associated preferred map (Map 2-22) would essentially prohibit granting new rights of way in the planning area. It would also eliminate part of the existing energy corridor that Congress mandated be designated in Section 368 of the Energy Policy Act of 2005. See Management Action 6206 (which would "eliminate the existing corridor identified in WWEC ARMPA/ROD (2009) east of the Flaming Gorge I the planning area"). | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. Management actions for all four alternatives are identified in the DEIS for management actions 6206 |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13590-2 | Because rights of way are necessary for virtually any new economic development and because of the federal ownership of land in the "checkerboard" area along I-80, under Alternative B essentially no new project requiring a road, a pipeline or a broadband cable could be constructed. This would severely limit not only Wyoming's traditional industries but would also prevent Southwest Wyoming from developing renewable energy projects or carbon capture from existing point sources. This would violate the BLM's own Instruction Memorandum IM 2022-41, which encourages the BLM to "authorize the BLM to issue ROWs to geologically sequester CO2 in federal pore space ..." | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13590-3 | In addition to crippling new economic development, these management actions would also damage existing residential home values in certain areas. There are homeowners in the planning area who must cross BLM land to a reach a county road. Many of these homeowners have obtained state-law based rights to cross private and state lands, but may not have a recorded right of way granted from the BLM. For those homeowners, Alternative B would effectively landlock them, thus diminishing the value of their homes. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13607-1 | The exclusion and avoidance area in Maps 2-22 and 2-24 under MA #6201 are inconsistent with MA #6206, which states that the BLM will retain the preferred corridors identified in the WWEC ARMPA/ROD 2009. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Please see Maps 2-21, through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13624-20 | The Draft RMP/EIS repeatedly states that there will be exclusion areas for new rights-of-way or easements. The Draft RMP/EIS also states Rights-of-Way Limitations exclusion areas are described as 2,480,876 acres and avoidance areas as 133,903 acres. See Draft RMP/EIS, Ch. 4, p. 4-24; Draft RMP/EIS, Exec. Summary, p. ES-5. A right-of-way grant "[a]uthorizes public lands to be used or occupied for the construction, operation, maintenance, and termination of a project or facility passing over, upon, under, or through such land". Draft RMP/EIS, Glossary, p. GL-26. Exclusion Areas are defined as areas where certain activities are prohibited and includes rights-of-ways as an example. Draft RMP/EIS, Glossary, p. GL-26. BLM should explain how multiple use activities can occur in areas of the RMP without rights-of-way exclusions if those activities require crossing rights-of-way exclusion activities. BLM should also explain how rights-of-way exclusions impact use and access to minerals and whether the rights-of-way exclusions increase the acreage of lands and minerals that will be unavailable for multiple use activities. | Management actions for all four alternatives are identified in the DEIS management action 6201 for lands considered available for ROWs. Exclusion and avoidance areas are defined by resource concerns. Maps 2-21 2-22, 2-23, 2-24 identify the differences between the alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13624-21 | Enclosed Map 4 depicts overlays of the RMP and the Known Sodium Leasing Area (KSLA) and proposed right-of-way exclusion areas. Alternative B proposes 49,224 acres would be closed to trona leasing and development within the KSLA. See Draft RMP/EIS, Ch. 4, pp. 4- 135 and 4-167. However, approximately 2,480,876 would be designated as right-of-way exclusion areas. Id. at 4-136. BLM further stated that "[a]lthough ROW avoidance acres would decrease, the larger increase in ROW exclusion areas would result in greater impacts to mineral resources, by likely limiting future access to mineral exploration and development sites and could restrict the placement of facilities associated with mineral exploration, development, and operations, including pipelines, transmission lines, communication facilities, and roads." Id. As demonstrated in Map 4, the KSLA west of Flaming Gorge and in the southwest portion of the KSLA is effectively blocked from development due to right-of- way exclusions blocking access to the north where connections to rail and other existing transportation routes are located. Similarly, the checkerboard areas in the northern section of the KSLA have extensive ROW exclusion areas. BLM should identify the total acreage that is effectively and practically withdrawn from development of trona and other mineral resources and describe the impact of the proposed withdrawal. BLM should also provide information and an analysis of how, under Alternative B, lands available for multiple use will be accessed and used. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. See also Planning Criteria in Section 1.4. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13624-23 | The Draft RMP/EIS proposes to "limit geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities to the Rock Springs Uplift." Draft EIS, Ch. 2, p. 2-109. Limiting the area available for carbon sequestration is proposed without any scientific or regulatory basis to support that action. The Draft RMP/EIS does not include a description of the area or a map depicting the "Rock Springs Uplift". The enclosed Map 5 is a map of the uplift as defined by the Wyoming Geological Survey. Based on Map 5, the Rock Springs Uplift is a small portion of the RMP and the remainder of the RMP would be excluded from consideration for carbon sequestration. This vast exclusion ignores the federal Administration's stated priority to address climate change and only serves to limit the ability to capture and store CO2. Again, no scientific or geologic basis is provided to support this proposed management action. The current Administration has prioritized addressing climate change as a policy priority and carbon capture and sequestration is an effective tool for reducing CO2 in the atmosphere. Wyoming is well poised to successfully deploy carbon capture and sequestration solutions given the regulatory framework Wyoming has established and its primacy for the UIC Class VI program under the Safe Drinking Water Act. Wyoming recently issued its first permits to construct three Class VI wells and is reviewing applications for five additional Class VI wells. | Management actions for all four alternatives are identified in the DEIS for management action 6001. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way | #13624-24 | Limiting consideration of carbon capture and sequestration projects to the Rock Springs Uplift removes potential carbon capture and sequestration projects from most of the land within the Rock Springs RMP. Again, BLM should provide a scientific basis for removing most of the RMP from consideration for carbon sequestration and | Management actions for all four alternatives are identified in the DEIS for management action 6001. Chapter 4.19 identifies impacts analyzed for all four alternatives. |

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| and Corridors (6200-6210) | | information provided should be "high-quality, science-based and accessible". National Environmental Policy Act Implementing Regulations Revisions Phase 2, p. 49930, 88 Fed. Reg. 49924 (July 31, 2023). BLM should also identify and describe the technical and geologic factors that led BLM to conclude areas outside of the Rock Springs uplift are unsuitable for geologic sequestration. Since part or most of the area within the Rock Springs uplift falls within right-of-way or other exclusions, BLM should specify what areas within the Rock Springs uplift would be open for carbon sequestration. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13624-25 | The Draft RMP/EIS states that 3,535,546 acres within the RMP would be closed to leasing. Draft EIS, Exec. Summary, p. ES-5. WDEQ has been approached by developers who have expressed an interest in pursuing carbon sequestration in deep underground coal seams. The Draft RMP/EIS is not clear; it states that coal is closed to leasing and does not explain whether the area is closed to coal mining only or to all activities using the coal resource. WDEQ requests BLM to clarify the proposed status of coal leasing within the RMP. | The 3,535,546 acres identified as closed to leasing on p. ES-5 are specific to coal leasing. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13624-47 | Energy Corridors The Draft RMP/EIS and accompanying GIS data, that is publicly available through the BLM, demonstrates several conflicts between the proposed right-of-way exclusion zones and existing and future energy corridors. Future development of projects within energy corridors will likely need to be permitted by the WDEQ Industrial Siting Division, in conjunction with other WDEQ divisions. Map 8 shows existing energy corridors in relation to the Proposed Alternative B right-of-way exclusion zones. The existing corridors for the GreatWest, TransWest, and Utility Corridors all pass through proposed right-of-way zones. The Draft RMP does not explain how BLM will manage the existing energy corridors that are currently located within the proposed right- of-way exclusion areas. The RMP also fails to explain how future additions or revisions to these corridors may be addressed, including corridors that are currently considered by the BLM in NEPA Register Number DOI-BLM-HQ-3500-2023-0001-RMP-EIS, § 368 Energy Corridor Amendments. Additionally, the data provided for review of the Utility Corridor appears to be incomplete because several of the corridors end abruptly at the Western RMP boundary. See Map 8. Regardless of whether the data was excluded by accident or intentionally, additional conflicts with the proposed right-of-way exclusion zones are possible. However, because a seemingly incomplete data set was released for review, WDEQ is unable to identify additional conflicts at this time. Id. | Management actions for all four alternatives are identified in the DEIS for management action 6000-6015, for Lands and Realty lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13651-50 | The information given says nothing about locations and clustering of cultural resources in relation to that for wells and oil and gas facilities, but it should. How do closures in alternatives relate to current oil and gas developed areas? Similarly the draft EIS does not address road and utility developments (pipelines, power lines) and it should. | Management actions for all four alternatives are identified in the DEIS for management action 6000-6015, for Lands and Realty lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-3 | Not only is BLM proposing to remove millions of acres from multiple use, many of the acres that BLM says remain open to multiple use will be effectively off limits due to the proposed right of way (ROW) exclusion in the agency preferred alternative. These actions will not only affect federal lands, but many acres of state and private lands, impacts which BLM has not analyzed. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Chapter 4.19 impacts analyzed for all four alternatives. See also Section 1.4 for the Planning Criteria and applicable laws and regulations that apply. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-6 | On page 1-4, one of BLM's planning criteria indicates that no decisions will be made relative to non-BLM administered lands. Unfortunately, due to Wyoming's land ownership patterns and especially in the area. of the checkerboard, any BLM decision will have significant impacts on non-BLM administered lands. BLM should acknowledge this fact and include or at least acknowledge this in the discussion of impacts related to management actions. The proposed ROW exclusion presents significant impacts to state and private lands throughout the RSFO. Especially in the checkerboard area, it will be nearly impossible to build a road, pipeline, or other infrastructure to access well locations, even if the wells are located on private or state lands. BLM must analyze these impacts to private and state lands created by BLM's proposed management actions, even if the ROW exclusion and the RMP does not apply to these lands. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Planning criteria chapter 1.4 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-7 | On page 1-5 BLM indicates all proposed management actions will be based on current scientific information, research and technology, and existing inventory and monitoring information. BLM goes further to say a Mineral Potential Report, Cultural Resources Overview Report, Biological Assessment, Socioeconomic Baseline Report, and Reasonable Foreseeable Development Scenario for Oil and Gas will be completed and used as part of the RMP revision process. The BLM should include an RFD for Renewable Energy as any analysis of impacts is incomplete without understanding the potential for wind and solar energy projects within the RSFO. | Management actions for all four alternatives are identified in the DEIS for management action 6000-6015, for Lands and Realty and management actions 6100-6108 for renewable energy. See Chapter 4, sections 4.19 and 4.20 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-10 | On page 2-3, BLM states that closing the planning area to new leasing of federal minerals, specifically fluid minerals, was considered as a method for resolving conflicts with other resource values and leases. BLM further states that this action is not reasonable in light of the BLM's multiple use mandate outlined in FLPMA and the MLA and is inconsistent with policy objectives. Yet, this is exactly what the agency's preferred alternative is doing. The agency preferred alternative includes significant ROW exclusions, which results in BLM is effectively closing the entire area to new leasing of federal minerals. No operator would lease lands that are physically undevelopable due to the management actions proposed by BLM in Alternative B. With the ROW exclusions, BLM is not only closing federal lands from leasing, but will be significantly impacting state and private lands and also will be effectively eliminating oil and gas development on previously leased but undeveloped federal minerals. The ROW | Management actions for all four alternatives are identified in the DEIS for management action 6000-6015, for Lands and Realty lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Chapter 4.19 impacts analyzed for all four alternatives |

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| | | exclusion does so by eliminating the ability of any oil and gas operator to build infrastructure across federal lands where the ROW exclusion is applied. This ROW exclusion in the agency preferred alternative (Alt B) will almost entirely exclude any new ROWs in the north and south areas of the RSFO and will create isolated areas in the checkerboard where infrastructure could be built within an isolated area, but exclusion areas would make it difficult to connect the isolated area to the outside world. These exclusions would eliminate the ability for oil and gas operators to utilize existing rights on currently leased lands and state or private lands because without a road to access the lease or pipelines to move produced oil and gas they cannot drill the well. BLM has created a management scenario that will result in no new leasing of federal minerals and will remove the ability to develop currently leased federal minerals. In their own words this violates BLM's multiple use mandate and is not a reasonable alternative. NEPA requires the analysis of reasonable alternatives and BLM must exclude Alternative Band re-analyze a new alternative in this Draft RMP. Management for preservation purposes is not managing for multiple use when you close all unleased areas to new leasing and ROW. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-11 | The BLM creates management action 6001 related to carbon sequestration (CCS) in Table 2-1 but this is the only place in the document CCS is discussed. While there is a discussion about the Rock Springs uplift being suitable for CCS in the RFD, there is no explanation anywhere that provides reasoning for why Alternative B limits sequestration activities to the Rock Springs uplift. The RFD is also 13 years old and there have been significant advancements in knowledge and development of markets related to CCS since that time. BLM did not coordinate with the WDEQ or WOGCC in relation to CCS. Relatedly, there does not seem to be discussion of the effects of CCS projects or CO2 enhanced recovery projects on GHG emissions. While outdated, the RFD does identify 26 billion tons of CO2 storage potential. The Monell Unit CO2 flood in the project area also sequesters a significant volume of CO2 through enhanced oil recovery (EOR). It is estimated that approximately 90% of CO2 injected during tertiary recovery operations (EOR) remains in the ground. This does not appear to be accounted for in the GHG analysis. | Management actions for all four alternatives for lands and realty are identified in the DEIS for management action 6000-6015. Chapter 4.19 identifies impacts analyzed for all four alternatives. Executive Summary ES-7 identifies the Consultation and Coordination of agencies to prepare the DEIS, with a full distribution list identified in section 5.3. Chapter 1.4 Planning Criteria addresses the consultation and coordination with other agencies. The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-12 | To cure the deficiencies related to CCS, the RSFO should prepare a supplemental EIS ensuring the following are completed: 1) coordinate with WDEO/WQD and WOGCC regarding CCS proposed management actions in the RMP; 2) if BLM decides to retain any management action that may limit CCS, provide justification for how limiting sequestration helps meet management objectives and how CCS potential in the management area will be impacted; 3) if RSFO decides to retain the Rock Springs Uplift as the sole area available for such activities, include a description and map illustrating the area designated as open to CCS; and 4) Evaluate and assess the impacts of the different alternatives on CCS projects, especially as it related to ROW exclusions preventing projects both inside and outside of the RSFO planning area by preventing roads and pipelines; and 5) Include the effects of enhanced recovery projects and CCS projects on GHG emissions for each alternative. | Management actions for all four alternatives are identified in the DEIS for management action 6001. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-13 | A relationship between the significant ROW exclusion in Alternative Band its impact to CCS also needs to be recognized by BLM. BLM is providing access to pore space by issuing a ROW permit. The WOGCC assumes this is a subsurface ROW authorization, but BLM does not distinguish in the RSFO RMP if the ROW exclusion would apply to subsurface ROW the same as a surface disturbing ROW. This is another deficiency in the analysis conducted by BLM in the RMP that must be corrected in this EIS or a supplemental. Eliminating the ability to secure a ROW for use of the pore space in a CCS project could impact the viability of future projects. This would also impact the ability of the state or private pore space owners to utilize their pore space rights, especially in the checkerboard. BLM must analyze this impact. | See Glossary for definition of 'exclusion area' for ROWs. Management actions for all four alternatives are identified in the DEIS for management action 6000-6001. Chapter 4.19 identifies impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13658-24 | In section 4.19 Lands and Realty, BLM fails to include an evaluation of CCS. The RMP fails to account for the GHG emissions reductions that could be achieved by CCS projects within the RSFO. BLM has provided an incomplete and incorrect analysis of how this could impact oil and gas and other minerals within the RSFO. | Emissions analysis data can be found in Appendix P Air Quality Technical Support Data and section P.6.2 identifies Emissions Estimation Criteria |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13672-2 | In addition, several of the exclusion and avoidance areas in Maps 2-22 and 2-24 under MA #6201 are in conflict with Wyoming Department of Transportation existing rights-of-way. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13702-11 | * The BLM does not have the authority to change portions of the energy corridors to avoidance and exclusions area since the corridors were designated on federal lands under Section 368 of the Energy Policy Act of 2005. The exclusion and avoidance area in Maps 2-22 and 2-24 under MA 6201 are inconsistent with MA 6206, which states that the BLM will retain the preferred corridors identified in the WWEC ARMPA/ROD 2009. The BLM even states that "As preferred locations for energy transport rights-of-way on BLM-managed public lands, these corridors are intended to facilitate long-distance movement of oil, gas or hydrogen via pipeline, and transmission and distribution of high-voltage electric power." The energy corridors can only be modified through the NEPA process. In addition, several of the exclusion and avoidance areas in Maps 2-22 and 2-24 under MA 6201 conflict with Wyoming Department of Transportation existing rights-of-way. | Chapter 1.5 identifies the relationship to other plans to include in the DEIS. Table 1-2 lists the local, state and federal plans that may pertain to the DEIS. |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13715-11 | Specific BLM Proposed Management Actions with Respect to ROWs Are Arbitrary and Capricious. a. MA #1313 (Floodplains and Drainages). Alternative B prohibits surface disturbing activities and new permanent facilities within ¼ mile of floodplains, wetlands, riparian areas, perennial streams, and 500 feet of the inner gorge of large ephemeral drainages. No linear crossings are permitted in these areas. This requirement will mean that future pipeline crossings of any drainage feature, including non-wetland ephemeral drainages, may be unavailable even if no resource damage will result. Given the prominence of ephemeral drainages in the RFSO area, the DEIS fails to fully analyze the effect of this restriction on future development of necessary ROWs for product transport, pipeline, transportation, and other uses. Alternative D provides a more reasonable alternative by allowing BLM AO to permit linear crossings on a case by case basis. | Management actions for all four alternatives are identified in the DEIS for management action 1313 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13715-12 | MA #7002-7003 (National Historic and Scenic Trails). Alternative B creates a 10 mile wide trail management corridor (5 miles per side) of right-of-way exclusion areas in the general area where the boundaries of Sublette, Lincoln, and Sweetwater counties converge, on the northwest portion of the RFSO, with an additional ROW avoidance area from mile 5 to 15. This is an area of significant and dense existing natural gas production, is currently fully-leased for oil & gas, and includes EPP's existing Bird Canyon compressor station. This is an area not deemed worthy of ACEC or other special status in any alternative. As noted in MA #7002 for Alternative D, BLM and Wyoming SHPO have agreed that the setting of the NHT in the western part of the RSFO has been compromised by existing development, justifying a ¼ mile buffer on each side of the NHT, not the 10 mile ROW exclusion zone (and combined 30 mile exclusion and avoidance zone) proposed in Alternative B. As discussed in Comment #4 above, the elimination of future right-of-way access for transportation of natural gas is an impairment of the leasehold rights of existing oil & gas lessees. In this case, where BLM has agreed with SHPO that existing development justifies only a¼ mile buffer, it is arbitrary and capricious to impose a giant exclusion zone (and co1Tesponding future leasing withdrawal) where the area is a developed field, and where the protective measures proposed in each of the other three alternatives are fully adequate to protect the NHT resource | Management actions for all four alternatives are identified in the DEIS for management actions 7002 and impacts analyzed in Chapter 4, 4.12 Cultural Resources. A.2 Best Management Practices Section A.2.1 BMPs for important Cultural Resource and Trail Settings |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13751-87 | Rights of Way and Corridors: The exclusion and avoidance area in Maps 2-22 and 2-24 under MA #6201 are inconsistent with MA #6206, which states that the BLM will retain the preferred corridors identified in the WWEC ARMPA/ROD 2009. The BLM does not have the authority to change portions of the energy corridors to avoidance and exclusions area since the corridors were designated on federal lands under Section 368 of the Energy Policy Act of 2005. The BLM even states that "As preferred locations for energy transport rights-of-way on BLM-managed public lands, these corridors are intended to facilitate long-distance movement of oil, gas or hydrogen via pipeline, and transmission and distribution of high-voltage electric power." The energy corridors can only be modified through the NEPA process. In addition, several of the exclusion and avoidance areas in Maps 2-22 and 2-24 under MA #6201 are in conflict with Wyoming Department of Transportation existing rights-of-way. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13751-161 | MA #6201#LR-06, MR-03#The planning area, with the exception of defined exclusion and avoidance areas, would be open to the consideration of granting rights-of-way (see Special Management Area section and Table 2-10, Appendix V). Industry position: Acceptable.#The planning area is open to consideration of granting rights-of- way with the exception of defined exclusion and avoidance areas (see Map 2-22). Industry position: Not acceptable. Reason: BLM using exclusions and avoidance areas around ACECs and historic trails and not taking into consideration that the KSLA has a higher value resource. Exclusion area acreage removed from right-of-way access is 2,480,876 acres which is 67 percent of the planning area BLM-administered federal land surface. Some of the exclusion and avoidance areas depicted in Map 2-22 are located on previously disturbed lands. This alternative conflicts with MA #6206 which retains the corridors established under Section 368(a) of the Energy Policy Act of 2005. BLM cannot make these corridors exclusion and avoidance areas without undergoing NEPA.#The planning area is open to consideration of granting rights-of- way with the exception of defined exclusion and avoidance areas (see Map 2-23). Industry position: Not acceptable. Reason: Not consistent with the exclusion and avoidance areas in the existing RMP.#The planning area is open to consideration of granting rights-of-way with the exception of defined exclusion and avoidance areas (see Map 2-24). Industry position: Not acceptable. Reason: Some of the exclusion and avoidance areas depicted in Map 2-24 are located on previously disturbed lands. This alternative conflicts with MA #6206 which retains the corridors established under Section 368(a) of the Energy Policy Act of 2005. BLM cannot make these corridors exclusion and avoidance areas without undergoing NEPA.#Alternative A is acceptable. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13751-162 | MA #6202#LR-06, MR-03#Areas are designated for avoidance or exclusion to rights-of-way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts. Rights-of-way and avoidance areas are described in Table 2-10, Appendix V and shown on Map 2- 21. Industry position: Acceptable.#See MA #6201 Industry position: Not acceptable. Reason: BLM using exclusions and avoidance areas around ACECs and not taking into consideration that the KSLA has a higher value resource. Exclusion area acreage removed from right-of-way access is 2,480,876 acres which is 67 percent of the planning area BLM-administered federal land surface. Some of the exclusion and avoidance areas depicted in Map 2-22 are located on previously disturbed lands. This alternative conflicts with MA #6206 which retains the corridors established under Section 368(a) of the Energy Policy Act of 2005. BLM cannot make these corridors exclusion and avoidance areas without undergoing NEPA.#See MA #6201 Industry position: Not acceptable. Reason: Not consistent with | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |

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| | | the exclusion and avoidance areas in the existing RMP.#See MA #6201 Industry position: Not acceptable. Reason: Some of the exclusion and avoidance areas depicted in Map 2-24 are located on previously disturbed lands. This alternative conflicts with MA #6206 which retains the corridors established under Section 368(a) of the Energy Policy Act of 2005. BLM cannot make these corridors exclusion and avoidance areas without undergoing NEPA.#Alternative A is acceptable. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13751-163 | MA #6209#LR-06, SD-37, BR-24#In the JMH area, the transportation plan also applies to the transport of gas, condensate, or water via pipelines and electric power transmission (buried power lines) within the planning area. Pipelines and buried power lines generally would be located adjacent to roads to reduce new surface disturbance. Industry position: Not applicable. Reason: Specific to the JMH planning area#Locate pipelines, power lines and other utilities adjacent to or co- located within existing ROWs to reduce new surface disturbance. Industry position: Not acceptable. Reason: Needs to allow flexibility where it may not be possible to co-locate within existing ROWs.#Locate pipelines, power lines and other utilities adjacent to or co- located within existing ROWs to reduce new surface disturbance, where feasible. Industry position: Acceptable.#Same as Alternative C Industry position: Acceptable.#Alternatives C and D are acceptable. | Management actions for all four alternative are identified in the DEIS for management action 6209. Impacts from each of the alternatives can be found in Chapter 4. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13752-5 | Installing new distribution power lines underground or converting existing lines from overhead to underground may not be feasible from engineering and operations perspectives. In addition, burying power lines can result in greater ground disturbance during construction and repairs, longer outage periods for customers, increased cost, and reduced reliability. Even where technologically feasible, the financial impacts of undergrounding are likely to be significant. BLM should remove undergrounding as a required design feature from all alternatives; it should, instead, be considered on a case-by-case basis. | See Appendix A, A.1 Project Design Features and Best Management Practices, Introduction |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13752-6 | Access to authorized facilities is critical for the safe and reliable operation of the electrical grid and is needed for inspections, maintenance, repairs and wildlife prevention activities. The preferred alternative's significant increase in ROW exclusion and avoidance areas, by limiting access to electrical infrastructure, threatens security and public safety, and could increase wildfire risks. EWAC is concerned that the ROW exclusion areas, resource-related closures and access restrictions (in particular sections 4.19.2, 4.4, and 4.5), particularly when combined with the proposed removal and reclamation of existing travel routes identified in Appendix B, have been proposed without giving adequate consideration to necessary access to critical infrastructure and the potential that electrical infrastructure could effectively be land- locked. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13754-8 | In the DRMP, the BLM makes the general statement that "[t]he RMP will recognize valid existing rights." See Draft RMP/EIS at 1-2 and 2-2 (which mentions applying Alternatives stipulations and mitigations to applications for permit to drill). Unfortunately, the BLM does not explicitly recognize that in areas proposed for ROW avoidance or exclusion that lessees will be able to maintain their valid existing rights, which in many instances will require additional rights-of-way for new or expanded production. Operators of any current oil and natural gas leases may not be granted new ROWs. | See Planning Criteria Chapter 1.4 and management actions for all four alternative are identified in the DEIS for management action 6201 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13755-8 | BLM proposes a vast increase in areas subject to right-of-way exclusion throughout the management area. Within the KSLA, most of the newly excluded areas appear to coincide with the historic Overland Trail that cross I-80 within the KLSA, and the 1850 Cherokee Trail in the southern portion of the KSLA. Current restrictions related to these trails are limited to case-bycase mitigation and avoidance of surface uses within 0.25-mile. Now, BLM would exclude uses up to 5 miles from designated or eligible historic trails. These restrictions would render exclusion zones within the KSLA completely useless for trona mining. BLM provides little justification for expanded right-of-way exclusion zones. First, for purposes of the Overland Trail in the area of the KSLA, much of trail and the associated exclusion zone is within the viewshed ofl-80 and other service roads. It makes little sense to close the area to new rights-of-way when the visual setting is already highly impacted by thousands and thousands of passing vehicles | Management actions for all four alternatives are identified in the DEIS for management action 6201 and 7017. Impacts from each alternative can be found in Chapter 4. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13767-2 | Alternative B of the Draft RMP also aims to exclude 2,480,876 surface acres from use for rights of way, which would include BLM surface acres that are checkerboarded with private lands that host CO2 emission facilities in the AOR. Alternative B would effectively condemn pore space underlying these private lands by prohibiting these private emitters from implementing a point-source capture site at its respective facilities due to the fact that the continuous, checkerboarded BLM surface acreage will be excluded from rights of way to the federal pore space. Furthermore, the exclusion of rights of way would prevent any efforts to transport the CO2 via pipeline from its source to the storage site, whether it's the SCS Hub or the Rock Springs Uplift. These consequences make it difficult to comprehend how Alternative B "improves air quality" when almost 70 percent of the BLM surface acres are excluded from rights of way, dramatically reducing the potential for any commercial carbon sequestration projects from being commissioned in the AOR. | Management action for all four alternatives are identified in the DEIS for management action 6001 and impacts for each alternative can be found in Chapter 4. |
| 827 - Land Resources–Rights-of-Way | #13775-2 | BLM-WY currently manages areas that are closed to mineral leasing, have NSO stipulations, or are otherwise identified as unsuitable for surface disturbance or occupancy as ROW exclusion or avoidance areas. This is an appropriate practice which protects areas and resources which require such protection will still limiting ROW exclusions to only 12 percent of the planning area. But BLM-WY presents no justification for expanding ROW exclusions beyond such areas and encompassing the majority of the planning area in such exclusion zones. Nor | Management actions for all four alternatives are identified in the DEIS for management action 6201. Impact analysis can be found in Section 4.19. |

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| and Corridors (6200-6210) | | does BLM-WY articulate how such an expansion would enhance would provide better protection to any of the resources under its management. Such omissions call into question the need or legitimacy of such a policy change. If BLM- WY has a substantive reason for such a restriction, it should, and indeed is required to, articulate it in detail in the Draft RMP. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13775-6 | the broad ROW exclusion and avoidance areas prescribed in MAs 7002 and 7003 could make it impossible for private landowners to exercise their rights for access and development, which could include EMA's trona producing members attempting to access operational areas. Specifically, both MAs would designate areas ranging from 5-15 miles on either side of a NHT as Trail Management Corridors. Those areas would then be subject to numerous restrictions including closure to mineral leasing, closure to mineral material sales, pursuit of withdrawal, and exclusion areas for ROWs.27 These exclusions and avoidance areas should be replaced with case-by-case assessment in the checkerboard ownership areas which is consistent with current successful management practices in the RMP area. | Management actions for all four alternatives are identified in the DEIS for management actions 7002 and 7003 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13779-5 | The vast number of acres closed to rights of way (ROW) combined with heavy restrictions applied to "open" acres will make renewable energy development near impossible in the Rock Springs Area. BLM has tools to ensure renewable energy and transmission development occurs responsibly and to mitigate impacts to wildlife, and other resources. BLM should rely on these tools, rather than excluding ROWs outright. As stated above, many of the conservation efforts BLM is hoping to achieve in this RMP are vulnerable to the impacts of climate change. | Management actions for all four alternatives are identified in the DEIS for management action 6201. Impact analysis can be found in Section 4.19. and 4.20 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13783-13 | Further, Wexpro specifically objects to BLM's proposed right-of-way exclusion area for the Cherokee Trail cutting a 4-mile-wide swath through the Vermillion Field. The below map shows the proposed ROW exclusion area (red shaded zones) in relation to the existing field. This same map is appended to this letter in full scale for ease of reference and so BLM can expand the file to better view the map key and other details. BLM's heavy-handed proposal would cripple ongoing oil and gas development, which has already been analyzed in the Vermillion Infill Environmental Assessment, by foreclosing off-lease facilities, transmission, and access in this active oil and gas field that has been in production already for 80 years. Specifically, even though Wexpro makes use of a system of existing connecting roads and gathering systems in the area,3 it is not possible to develop new wells without some off-lease rights-of-way. For Wexpro's 40-well development program in 2023, ten new rights-of-way were required for water haul routes, use of an evaporation pond, gathering pipelines, temporary surface water transfer lines, access roads, and well pads. | Management actions for all four alternatives are identified in the DEIS for management action 6201. Impact analysis can be found in Section 4.19 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13783-14 | In many cases, the rights-of-way allow Wexpro to reduce surface impacts and provide operational flexibility. For instance, in 2023, an existing multi-well drilling location within the Alkali Gulch Unit Area was used to develop wells on acreage near, but outside the unit area. If no right-of-way was available, development outside the unit area would have required the construction of a new well pad on the outside acreage, building a road to access the well pad, and the laying of pipeline (water and gas) to the well pad. Rights-of-way often provide the flexibility necessary for operators to reduce surface disturbance and mitigate wildlife and cultural impacts. At the very least, designating much of the Vermillion Field as a right-of-way exclusion zone eliminates the ability to use off-lease infrastructure to minimize disturbance. But even more importantly, disallowing rights-of-way results in the impairment of existing rights by cutting off access to leased acreage. This blatant violation of Wexpro's existing lease rights specifically in the Vermillion Field for alleged protection of the Cherokee Trail is doubly concerning given that both BLM and the SHPO agreed to appropriate mitigation for the Cherokee Trail, which is being implemented as part of the Project. | Management actions for all four alternatives are identified in the DEIS for management action 6201. Impact analysis can be found in Section 4.19 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13783-15 | Wexpro requests that BLM withdraw any proposal for a right-of-way exclusion area through the Vermillion Field and instead asks that BLM defer to the existing Programmatic Agreement and revert to Alternative A for right-of-way management in this area. | Management actions for all four alternatives are identified in the DEIS for management action 6201 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13784-63 | "The effects on livestock grazing resulting from the development of ROWs would be similar to Alternative A, except 2,480,876 acres would be excluded from ROW development (481% increase, which would decrease the extent of related forage removal, but could decrease opportunities for access to remote locations within the allotments." (p. 4-178) Comment: ROWs should not prohibit livestock grazing permittees access to their allotments. ROWs excluded from development does not equate to road closures or inability to manage range improvements using vehicular access. | See the range of alternatives in the DEIS, ROW management actions identified for management action 6201. Note that livestock grazing is a separate permitted activity and not a right-of-way. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13784-65 | "Impacts on livestock grazing from managing OHV use would be similar to those presented under Alternative A, except the areas currently designated as "limited to existing roads and trails" (2,398,839 acres) would be changed to "limited to designated roads and trails" (3,367,576 acres) and all routes would be designated as open, closed or limited." (p. 4-178) Comment: Changing the terminology from "existing" to "designated" roads and trails leaves the public unable to determine the actual impacts because the "designation" is unknown under Alternative B. Livestock grazing permittees should not lose access to administrative access for the purposes of managing their permits, livestock, and range improvements. | See Glossary page GL-7 for Designated Roads and Trails |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13784-69 | 4.19.3 Lands and Realty, Alternative B: "Under this alternative, areas managed as exclusion areas for ROWs would increase to 68% of the planning area (2,480,876 acres) and areas managed as avoidance areas for ROWs would decrease to 4% of the planning area (133,903 acres). This would increase the acres in which ROWs are precluded, which would potentially increase the number of ROW facilities precluded from development." (p. 4-211) Comment: Alternative B directly conflicts with the agency's push for increased renewable energy development. This would undoubtedly decrease potential for solar development. | Chapter 4.19 and 4.20 of the DEIS describe the impacts for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13784-71 | "The granting of ROWs is crucial to supporting national energy plans that include developing renewable energy, "(p. 4-220) Comment: This sentence indicates the agency and administration's interest in increasing renewable energy, but the Preferred Alternative B will directly conflict with this process. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See also Section 1.4 for the Planning Criteria. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13784-73 | "The management actions for renewable energy development under this alternative are similar to Alternative A, except ROW exclusion areas would be greater (2,480,876 acres excluded, which is 2,054,167 more acres than Alternative A." (p. 4-224) Comment: The statement is incredibly misleading. The two alternatives A and B are not similar in any way regarding renewable energy in ROW areas. Alternative B will be nearly impossible to develop with the substantial exclusion area. | See page 2-224 in it's entirety and chapter 4.19 for impacts under all alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13787-23 | Resource: Rights-of-Way and Corridors (6200-6210) The exclusion and avoidance areas in Maps 2-22 and 2-24 under MA #6201 are inconsistent with MA #6206, which states that the BLM will retain the preferred corridors identified in the WWEC ARMPA/ROD 2009. The BLM does not have the authority to change the energy corridors that were designated on federal lands under Section 368 of the Energy Policy Act of 2005. The BLM states that "As preferred locations for energy transport rights-of-way on BLM- managed public lands, these corridors are intended to facilitate long-distance movement of oil, gas or hydrogen via pipeline, and transmission and distribution of high-voltage electric power." The BLM does not have unilateral authority under Section 368 and implementing authorities to delete a Section 368 corridor. | Appendix H Biological Assessment, page 25, Management actions in the ROW corridors section of the land resources program include coordination with other agencies (Action 6200), management guidance on open areas and avoidance areas (Actions 6201- 6202, and 6205), management of the Aspen Mountain Communication Site, as well as other sites (Actions 6203-6204), management guidance on designation or closure of corridors (Actions 6206- 6208,6210), and management guidance for locating pipelines, power lines, and other utilities (Action 6209). See also Management action 6201 Special Management Area section and Table 2-10, Appendix V. See Maps 2-22, 2-23, and 2-24 for alternatives. See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13787-24 | The exclusion and avoidance areas in Maps 2-22 and 2-24 under MA #6201 conflict with Section 368 corridors, Wyoming Pipeline Corridor Initiative (WPCI) corridors, and Wyoming Department of Transportation existing rights-of-way. | See Maps 2-22, 2-23, and 2-24 for alternatives. See Planning Criteria 1.4 and 1.5 relationship to other plans (Table 1-2) and management action 6200 of the DEIS, maintain a transportation network with state, local agencies, and governments |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13787-26 | The Lander RMP follows guidance (BLM Technical Reference 6280) to establish the boundaries of the Congressionally Designated Trails, including the setting of the trails as well as their nature and purpose. The BLM Rock Springs Field Office needs to reevaluate the boundaries of the Congressionally Designated Trails consistent with guidance. BLM Technical Reference 6280-1 states that "inventory, assessment, and monitoring (IAM) is guided by Bureau of Land Management (BLM) Manual 6280-Management of National Scenic and Historic Trails under Study or Recommended as Suitable for Congressional Designation-and is the responsibility of BLM staff to carry-out." In addition, it states that "IAM results can be used to establish a National Trail Management Corridor." The RMP needs to be revised to use the IAM results to establish a National Trail Management Corridor." In addition, Section 7(a)(2) of the National Trail System Act (as Amended in 2019) states that "Pursuant to section 5(a), the appropriate Secretary shall select the rights-of-way for national scenic and national historic trails and shall publish notice thereof of the availability of appropriate maps or descriptions in the Federal Register; Provided, That in selecting the rights-of-way full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for the specific area in order to insure continued maximum benefits from the land. The location and width of such rights-of-way across Federal lands under the jurisdiction of another Federal agency shall be by agreement between the head of that agency and the appropriate Secretary. In selecting rights-of-way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned." In accordance with this, the RSFO needs to obtain the advice and assistance of the State, local governments, private organizations, and landowners and land users concerned when establishing the alternative rights-of-way for the national scenic and national historic trails. Further, per BLM Manual 1601, Land Use Planning, Section 6(G) "Policy - Valid Existing Rights. All decisions made in land use plans, and subsequent implementation decisions, will be subject to valid existing rights. This includes, but is not limited to, valid existing rights associated with oil and gas leases, mineral leases, mining claims, and lands and realty actions (e.g., rights-of-way, easements, leases, etc.). The BLM has the discretion, subject to the agreement of holders of valid existing rights, to modify proposed actions to reduce the effect of actions on resource values and uses. These modifications may be necessary to maintain the choice of alternatives being considered during land use plan development and implementation, and may include appropriate stipulations, relocations, redesigns, or delay of proposed actions." | Management actions for all four alternatives are identified in the DEIS for management actions Special Designations Congressionally Designated Trails 7000-7022. Consultation and coordination are described in Chapter 5. |

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| | | The RMP needs to be revised to recognize valid existing rights before establishing National Trail Management Corridors. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13787-27 | In the checkerboard land ownership portions of the Rock Springs Management area, the large broad-brush ROW exclusion and avoidance areas prescribed in MA #7002 and MA #7003 could make it impossible for private landowners to exercise their rights for access and development. These broad-brush exclusions and avoidance areas need to be removed and replaced with case-by-case assessment in the checkerboard ownership areas. | Management actions for all four alternatives are identified in the DEIS for management action 7002 and 7003. Impacts for each of the alternatives can be found in Chapter 4. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13787-80 | MA #6201 LR-06, MR-03 The planning area, with the exception of defined exclusion and avoidance areas, would be open to the consideration of granting rights-of-way (see Special Management Area section and Table 2-10, Appendix V). Industry position: Acceptable The planning area is open to consideration of granting rights-of- way with the exception of defined exclusion and avoidance areas (see Map 2-22). Industry position: Not acceptable Reason: BLM using exclusions and avoidance areas around ACECs and not taking into consideration that the KSLA has a higher value resource. Exclusion area acreage removed from right-of-way access is 2,480,876 acres which is 67 percent of the planning area BLM-administered federal land surface. Some of the exclusion and avoidance areas depicted in Map 2-22 are located on previously disturbed lands. The planning area is open to consideration of granting rights-of- way with the exception of defined exclusion and avoidance areas (see Map 2-23). Industry position: Not acceptable Reason: Not consistent with the exclusion and avoidance areas in the existing RMP. The planning area is open to consideration of granting rights-of-way with the exception of defined exclusion and avoidance areas (see Map 2-24). Industry position: Not acceptable Reason: Some of the exclusion and avoidance areas depicted in Map 2-24 are located on previously disturbed lands. Alternative A is acceptable. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13787-81 | MA #6202 LR-06, MR-03 Areas are designated for avoidance or exclusion to rights-of-way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts. Rights-of-way and avoidance areas are described in Table 2-10, Appendix V and shown on Map 2- 21. Industry position: Acceptable See MA #6201 Industry position: Not acceptable Reason: BLM using exclusions and avoidance areas around ACECs and not taking into consideration that the KSLA has a higher value resource. Exclusion area acreage removed from right-of-way access is 2,480,876 acres which is 67 percent of the planning area BLM-administered federal land surface. Some of the exclusion and avoidance areas depicted in Map 2-22 are located on previously disturbed lands. See MA #6201 Industry position: Not acceptable Reason: Not consistent with the exclusion and avoidance areas in the existing RMP. See MA #6201 Industry position: Not acceptable Reason: Some of the exclusion and avoidance areas depicted in Map 2-24 are located on previously disturbed lands. Alternative A is acceptable. | Management actions for all four alternatives are identified in the DEIS for management action 6200 thru 6210 rights-of-way and corridors. Please see Maps 2-21 through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13795-3 | The proposed increase in exclusion areas outlined in Maps 2-22 would result in the isolation of existing and potential future trona mines, effectively barring extraction and development of the resources in the KSLA. This risk of the BLM-WY stranding resources by prohibiting ROWs for the transport of operational equipment, personnel, and materials, threatens to derail expansion plans in the KSLA. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. Impact analysis to Leasable Minerals can be found in Section 4.11 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13795-4 | As the global demand for soda ash continues to grow, the United States is well positioned to benefit from the natural advantage of Wyoming's rich trona reserves. As the current Administration remains focused on cultivating a more robust and resilient mineral supply chain, BLM-WY's approach to ROWs in the Preferred Alternative would effectively prohibit domestic production of a plentiful resource. Not only does BLM-WY's approach run in opposition to national supply chain priorities, but the Bureau does not provide meaningful justification for proposing such a drastic increase. | Analysis of the global supply of trona is outside the scope of this DEIS. See Section 1.4 for the Planning Criteria. Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. Impact analysis to Leasable Minerals can be found in Section 4.11 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13811-2 | Furthermore, BLM has not provided sufficient justification for the shift. BLM states that a reduction in rights-of-way would reduce associated emissions-generating activities, but it then concedes that "[e]stimated emissions are predicted to be very low for all alternatives and are not expected to contribute to significant air quality impacts."8 Alternative B's shift to exclusion areas would thus no better achieve BLM's conservation goals than the currently applicable Green River RMP, but it would have drastic socioeconomic effects on the Planning Area. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. Impact analysis to Leasable Minerals can be found in Section 4.11 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13811-3 | Alternative B also ignores BLM's inherent discretion in granting ROWs, and in requiring mitigation for potentially damaging activities. Moreover, Alternative B's dramatic shift to exclusion areas runs contrary to what BLM and stakeholders have been discussing throughout the entire RMP/DEIS development process. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. See Maps 2-21 through 2-24. Impact analysis Section 4.19 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13826-5 | LR-06: Manage public lands to meet transportation and ROW needs consistent with goals and objectives of other resources while supporting the national energy plans and policies. My Concern: This Goal or objective supports a concern that I commented on in a previous comment I submitted. That the roads and ROWs within the Rock Springs management district need to be maintained as they currently are and not closed to public access in order for the public (residents, tourists, and local industries that support our national energy needs). Closing roads and | Management actions for all four alternatives are identified in the DEIS for management action 6000-6015 lands and realty considered available for ROWs. Impact analysis Section 4.19 |

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| | | ROWs as suggested in the Alternative B plan or (mentioned and then pulled and placed in a separate plan) is in opposition of this BLM goal and objective. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13826-27 | My specific concerns are: * The impact of increasing the amount of 'ROW Exclusion' & 'ROW Avoidance' areas found on (Map 2-22: Rights-of-Way - in the proposed Alternative B) - Source: Vol. 1 Rock Springs RMP Revision Draft EIS - pg. 642. * This map shows an extreme increase in the amount of 'ROW Exclusion' and 'ROW Avoidance' areas from the current plan shown on (Map 2-21: Rights-of-Way - in the current Alternative A) - Source: Vol. 1 Rock Springs RMP Revision Draft EIS - pg. 641. * I cannot find anything in your plan to support such a large increase in the land areas to support this extreme amount of road closures to the residents of the area. Especially the area of my concern, which is the areas between General Chemical trona plant and the ghost town of Bryan, Wyoming and Little America. Most of the information I have located concerns ROWs and road restrictions in other areas of the BLM land. | Management actions for all four alternatives are identified in the DEIS for management action 6200 thru 6210 rights-of-way and corridors. Impact analysis Section 4.19. See also sections on Special Management, including ACECs and National Historic Trails, for more specific actions on proposed rights-of-way restrictions. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13826-32 | The plan as written is not complete and it is not clearly stated as to how this will impact my desired use of these roadways. I also could not clearly understand the difference between 'ROW Exclusion' and 'ROW Avoidance' in areas or why these would apply to the areas where my grandfather's homestead is located as well as the areas surrounding the ghost town of Bryan, Wyoming where my grandfather worked on the railroad as a pumper for the UPRR. These are areas I want to visit and contribute historical and family history to the local historical societies and museums. I therefore want access to these areas as well. I think I have located the area where his accident occurred. Again, I am not sure I can go to and explore these locations and I couldn't find information within the plan to help me determine if I could have access to these locations. Mr. Dudley Gardner was interested in working with me on some of this family history since very little is known about the early history of the Blacks Fork River and Bryan, Wyoming areas.I am experiencing confusion about the terms ROW exclusion & closure | See Glossary (GL-3 and GL10) for ROW avoidance and exclusion definition |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13826-33 | Also, are these roads closed to just the oil and gas industries or will they impact the trona, agriculture and recreational industries as well as the private citizen and resident who just wants to go for a drive? Recently, I received a copy of the 'The Wyoming Legislature's Joint Travel, Recreation, Wildlife and Cultural Resources Interim Committee' comments submitted to BLM concerning what they considered the negative impacts the RMP will have on Wyoming. In that document the committee noted that the favored RMP - Alternative Plan B. "… while closing 4,505 miles of routes to all use and a further 10,000 miles of routes and other linear disturbances to be removed for any transportation purposes." They also noted in their comments that, "It has been reported that the route closures included in the RMP were made in error but there has been no information provided by the BLM to explain what the errors were or what should be expected for route closures under the final version of the RMP." I also received a copy of the comments submitted by the 'Select Committee on Federal Natural Resource Management (Committee) of the Wyoming Legislature' on the (BLM) draft Rock Springs Resource Management Plan (RMP) and Environmental Impact Statement. This committee stated that they had previously heard testimony that the road closures were part of a separate travel management plan and had not been intended to be included in the Alternative B draft. The committee's comments suggests that they were also told that BLM intended to remove the route closures and the references to a travel management plan from the draft Rock Springs RMP. The committee's comment did say that, "However, BLM Wyoming did not specifically identify what would remain in the draft Rock Springs RMP and what would be removed." They then implied that they would include their concerns about possible road closures in the plan in their comments. Now this committee stated in their comments that "… Most significantly, "4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed from the transportation network and allowed to return to natural conditions."1 The draft Rock Springs RMP does not define "natural conditions," so it is unclear how long these roads could be removed from the transportation network. …. Under Alternative B, only 13.9% of existing roads and trails would remain open to vehicle use. The draft Rock Springs RMP also does not provide a map to show the specific routes that would be closed. The effect of these route closures may be even more significant and detrimental depending on where these closures actually are. Without a map, the Committee cannot accurately articulate the overall impact the route closures would have on recreation." I am asking that you consider allowing access to BLM roads and ROWs on a case-by-case basis instead of designating these areas as non-use or restricted. | The definition listed in the DEIS Glossary page GL-4 defines Closed Road. Management actions for all four alternatives are identified in the DEIS for Recreation for management actions 6607. See Chapter 4.17 for impacts analyzed for all four alternatives. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13831-1 | The Airport is located east of Rock Springs on lands that are bordered by several federally managed sections. Furthermore, all utilities and road systems serving the airport reside on or under federally managed lands. Furthermore, several critical Navigational Aids (NAVAIDs) are located on federally managed lands near the airport. The placement of and access to these NAVAIDs is critical for flight operations safety and airport viability. Unfortunately, every section of federally managed land that has a direct impact on the airport's current and future operations is included in the Plan and Draft EIS as Right-of-Way (ROW) Exclusions Areas. This creates grave concern from the Board as the long-term viability of airport will be adversely impacted if the Plan and Draft EIS are adopted as written. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. Impact analysis Section 4.19 |
| 827 - Land Resources–Rights-of-Way | #13831-4 | As previously mentioned, the federally managed lands surrounding the airport have been identified as ROW Exclusion Areas. The Airport Board is concerned that this designation in the preferred alternative will have the following adverse impacts: o Access to Navigational Aids (NAVAIDs) that sit on or are solely accessible by RSGA | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. Impact analysis Section 4.19 |

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| and Corridors (6200-6210) | | roads through BLM managed lands. o Emergency response access on established dirt roads around the airport proper that reside on BLM managed lands. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13831-5 | The airport is in a contractual relationship with a private developer for carbon removal and sequestration development on airport property. The intention is to pursue pore space right-of-way agreements with the BLM for pore space surrounding the airport. This right-of-way exclusion would prohibit that and adversely impact our ability to move forward with the utilization and monetization of the airport's pore space. | Management actions for all four alternatives are identified in the DEIS for management action 6000. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13831-6 | o The Airport Board is concerned on the impact of the preferred alternative and the ROW Exclusion Areas on the airport's ability to seek a land conveyance of these lands from the BLM pursuant to the Airport and Airway Trust Fund of 1982 and 43 CFR 2640. If the right-of-way exclusion prohibited land conveyance, this would severely hamper future growth opportunities for the airport. 43 CFR 2640 states, "Upon receipt of the request from the Administrator, the authorized officer shall determine whether the requested conveyance is inconsistent with the needs of the Department of the Interior (DOI), or any agency thereof…" The Airport Board is concerned that the DOI would find that conveyance of these lands would not be consistent with the needs of the DOI based on this preferred alternative. | Management actions for all four alternatives are identified in the DEIS for lands and realty management action 6002. Please see Maps 2-21 through 2-24. Impact analysis Section 4.19 |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13831-7 | The right-of-way exclusions would prohibit the airport from seeking right-of-way agreements with BLM for airport development projects on lands around the airport. Specifically identified for exclusion are the most likely and beneficial lands for development due to terrain. Specific sections of land that are of interest to the airport, but listed as exclusion areas are: ? T19N R103W SEC 20 ? T19N R103W SEC 28 | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13831-8 | * The Airport is the only Commercial Service Airport in the lower 48 that must truck both potable and fire suppression water to serve its facilities. The Airport is not connected to the municipal water supply. In partnership with Sweetwater County, the City of Rock Springs, the Joint Powers Water Board, Simplot Phosphates, Sweetwater Economic Development Coalition, and several others, plans are underway to develop robust water infrastructure east of town to not only support the airport but industrial development between the airport and Simplot Phosphates. The preferred alternative would render the efforts undertaken by partnership useless and eliminate the possibility of delivering a municipal water supply to the airport. | Management actions for all four alternatives are identified in the DEIS for management action 6201 lands considered available for ROWs. Please see Maps 2-21 through 2-24. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13831-9 | "Limit geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities to the Rock Springs Uplift." Please see my comment above regarding the airport's CO2 sequestration intentions. Furthermore, this exact statement tells of how this RMP is flawed. The current administration has invested billions into CCUS and our area is prime for CCUS development, yet, they now propose to eliminate that type of development on what is likely the most prolific geological storage site (Rock Springs Uplift) in the country. * | Management actions for all four alternatives are identified in the DEIS for management action 6001. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13848-1 | the alternating pattern of private lands and BLM lands means that BLM controls access to private sections for roads and transmission lines necessary for development of renewable energy on the interspersed private lands. To the extent that BLM imposes restrictions on the use of federal public land within the checkerboard area, it renders renewable energy development on tens of thousands of acres of private lands inside the checkerboard difficult or infeasible. | See 1.4 Planning Criteria |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13848-6 | The draft EIS fails to adequately analyze rights of inheld private land owners in the checkerboard to obtain reasonable access to inheld private lands under federal law, including without limitation generally-applicable provisions of the Alaska National Interest Lands Conservation Act, limiting BLM's discretion to consider wind development on private lands within the checkerboard as a connected action to access decisions on public lands. | See 1.4 Planning Criteria |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-3 | Closing areas to all solid mineral leasing or surface disturbance based on a rigid set of indices that are not clearly mapped, instead of evaluating projects on a case-bycase basis is unnecessarily restrictive, and creates difficulty in planning or siting new projects. In addition, there is no exception under Alternative B of MA #1107 for existing facilities (such as power lines or access routes) that require some occasional surface disturbance for operations and maintenance. Surface disturbance has historically been handled through cooperation between BLM specialists and PacifiCorp with the implementation of appropriate Best Management Practices (BMPs) (as Alternatives A, C, and D allow) and Alternative B could prevent PacifiCorp from fulfilling its requirements to maintain and operate its current system because there is no reasonable exception process. In addition to maintaining current infrastructure, the linear characteristics of power lines require that at some point, any new or proposed line or corridor would cross sites with soil disturbance that would fall under the list of soil types in Alternative B of MA #1107. Siting future lines and corridors includes weighing priorities of numerous resources, of which soil quality is one of many considerations. In some areas, powerlines may span soil types; however, there is no possible way to site a future line that could avoid all vulnerable soils, and under Alternative B, there is no reasonable way to determine options and implement BMPs to minimize those impacts. Under Alternative B, it would not be possible to plan future lines or corridors through the RSFO, including transmission infrastructure necessary to meet national energy goals and | See Glossary for a definition of 'surface disturbance'. Management actions for all four alternatives are identified in the DEIS for management action 1107. See Chapter 4.19 for impacts analyzed for all four alternatives. |

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| | | bring new renewables onto the grid. Alternatives A, C, and D specifically address soil concerns by including avoidance as an option, while requiring a mitigation plan (Alternative D) or erosion control plans (Alternatives A and C) where appropriate, and PacifiCorp recommends that the BLM adopt Alternative A, C, or D for MA #1107. Reclamation and mitigation plans can and are successful in difficult-to-reclaim areas, and should be allowed to continue. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-26 | K. MA #4602 The buffers associated with rare plant species differ under the alternatives of MA #4602 from buffers around plant "communities", "locations", or boundaries of locations. Consequently, these potential buffer distances could vary greatly. If these areas are included as ROW exclusion areas, there could be impacts on the ability for electric utilities to serve customers if areas much larger than needed to protect sensitive plants are included in extensive buffers (e.g., around plant communities). To protect rare plants while not overreaching on the need for ROW exclusion areas, PacifiCorp recommends that the BLM adopt Alternative C under MA #4602. | The differences among the proposed alternatives in MA #4602 is intentional regarding boundaries and locations to provide a range of actions. Management actions for all four alternatives are identified in the DEIS for management action 4602. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-34 | 8. Paleontological Resources Paleontological resources have established protocols to identify and protect significant surface exposures. Known areas that have been traditionally exploited for petrified wood should be managed in a way to better protect buried resources without restricting travel or closing areas to ROWS or other development. The paleontology in the RSFO is part of the Green River Formation that is also shared by the Casper, Rawlins, Kemmerer and Little Snake BLM Field Offices, in both Wyoming and Colorado. Any deviation of established protocols in this Formation would be problematic for state paleontologists as well as for linear projects that span across multiple field offices. Consequently, PacifiCorp recommends that the BLM maintain current practices and adopt Alternative A for Paleontological Resources (MA #5300- 5309). | Management actions for all four alternatives are identified in the DEIS for management action 5300-5309. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-35 | 9. Visual Resources PacifiCorp is concerned that the proposed extensive visual buffers in Alternative B surrounding trails and other visual resource areas will create setbacks from ROWS that are significantly greater than the original buffer. The evaluation of direct or indirect impacts on visual resources has established protocols that are consistent across all BLM Field Offices. The Visual Resource Management (VRM) system has a process to evaluate and inventory resources and landscapes for their visual values. Cultural resources such as trails, historic roads, petroglyph panels, and Traditional Historic Properties (THPs) have specific buffers or processes to establish indirect buffers to protect specific resources through consultation. Changing a VRM class through the establishment of an ACEC is inconsistent and contradictory with the VRM inventory process. Creating arbitrary buffers and/or increasing trail buffers that are inconsistent with adjacent BLM Field Offices and other agencies engaged in the evaluation process is problematic, creates confusion, and is an overreach of BLM's authority. Extending trail buffers up to 20 miles creates large exclusion areas that inhibit future development along linear resources across the entire field office. This hinders PacifiCorp's ability to site new power lines in response to increasing customer load, for reliability improvements, and to bring new renewable energy onto the grid. Presently, trails are inventoried with non-contributing segments of linear cultural resources allowing for development in certain areas. Extending the visual buffers to 5, 10, or 20 miles would remove this ability. BLM must follow its internal policy for inventorying visual resources and protect relevant landscapes within this process. Trail buffers must remain consistent with adjacent BLM Field Offices that manage the same resources. | Management actions for all four alternatives are identified in the DEIS for management action rights-of-way corridors 6200-6210. See Chapter 4.19 for impacts analyzed for all four alternatives. See also information for Visual Resource Management and proposed alternatives throughout the planning area. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-36 | 10. Lands and Realty Alternative B will impact operations and permit requirements at BCC. Under Alternative B of MA # 6201 and #6202 ROW Exclusion areas within approximately the northern third of the BLM lands are within the BCC permit boundary. On some of these lands BCC has existing ROWs for regulatory monitoring equipment (e.g., sediment stations and air monitoring stations), topsoil piles, roads, power lines, and other essential infrastructure. If ROW exclusions are imposed over these areas, BCC will not be able to secure additional ROW if they were needed to relocate any infrastructure or to build new access routes into existing infrastructure. Regulatory compliance with permits might be impacted if BCC cannot secure ROW for these kinds of essential activities. BCC prefers Alternative D because it does not include ROW Exclusion Areas within the BCC permit boundary. Although there are some ROW Avoidance Areas, Alternative D will allow the BLM to consider ROW applications on a case-by-case basis instead of outright excluding those ROW applications. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-38 | 12. Special Designations The expansion of the special designations associated with Alternative B will significantly impair transmission and distribution operations. Alternative B will increase ACEC size by and the amount of ROW exclusion areas in the project area. In Alternative A, currently 426,709 acres are categorized as ROW exclusion. Under Alternative B, this increases to 2,480,876 acres, making the siting of transmission projects difficult across the entire project area. Alternative A is preferred to enable transmission projects to be sited with reduced impacts to resources by shorter routes. | Management actions for all four alternatives are identified in the DEIS for management action of rights-of-way corridors 6200-6210. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-40 | A. MA #7418 and #7421 Alternative B of MA #7418 will expand the Greater Red Creek ACEC to include the Sugarloaf and Salt Wells Management area. Paired with Alternative B of MA #7421 to make the Greater Red Creek ACEC a ROW Exclusion Area, these Special designations greatly reduce and/or prohibit the potential development of new electricity transmission lines on the East side of Flaming Gorge, increasing cost of potential consumption of renewable hydro-generation power in south-central Wyoming. Alternative A of MA #7418 will maintain the Greater Red Creek ACEC at 131,600 acres by not adopting the Sugarloaf and Salt Wells Management Areas. Alternative A is preferred to maintain corridors for future development. | Management actions for all four alternatives are identified in the DEIS for management actions 7418 and 7421. See Chapter 4.19 for impacts analyzed for all four alternatives. |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-41 | B. MA #7456 Alternative B of MA #7456 will designate the Boars Tusk ACEC as an exclusion area for ROWs. This increase of exclusion area associated with the Boars Tusk ACEC reduces the ability to transmit energy to previously identified customers, thereby increasing future costs of energy grid delivery and reliability. Alternative A of MA # 7456 is preferred because it maintains the approved activities within this ACEC. | Management actions for all four alternatives are identified in the DEIS for management action 7456. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-42 | C. MA #7498 and #7502 Alternative B of MA # 7498 will expand the South Pass Historic Landscape ACEC to 171,300 acres (from 53,940 acres). This, paired with Alternative B of MA # 7502 making the South Pass Historic Landscape ACEC a ROW Exclusion Area, greatly reduces and/or prohibits the potential development of new electric transmission lines across South Pass to deliver cost-efficient energy. Alternative B would negatively impact the West-Wide Energy Corridor (WWEC) by reducing the area available to develop new ROWs. Specifically, Pg. 2-116 or the EIS states"[E]liminate the existing corridor identified in the WWEC ARMPA/ROD (2009) east of Flaming Gorge in the planning area (126-218). Corridor widths would be 3,500 feet wide. Designate no new corridors." The ability to site new transmission in this energy corridor is critical to renewable energy development in the west and reducing widespread impacts by line siting around areas considered exclusion zones in Alternative B. Alternative A of MA # 7498 is preferred in order to maintain the existing size of the South Pass Historic Landscape ACEC that will allow for the communities separated by the pass to grow and be delivered power reliably and cost effectively. | Management action for all four alternative are identified in the DEIS for management actions 7498 and 7502. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-44 | As stated above, ROW Exclusion areas could impact BCC's ability to comply with permits and regulations as many of its ROW are related to regulatory compliance structures and access to topsoil piles. If a structure needs to be moved, a new well drilled, or a new access road placed in these areas, the BLM would not be able to consider the request due to the ROW exclusion. The ROW avoidance areas in Alternative D would have little or no impact on BCC's operations or regulatory compliance and Alternative D or A is preferred by BCC. In addition, also as discussed above, the ROW Exclusion areas limit existing transmission and distribution O&M and the ability to construct new transmission and distribution and other energy projects. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-47 | [comment:13865-47; 824, 827]. In addition to the inconsistencies already discussed, Alternative B will create regulatory inconsistencies across BLM field offices and is beyond the scope of BLM regulation. There must be consistency across BLM field offices. For linear utilities or any project that straddles field office boundaries, changing how any resource is managed within multi-agency process driven protocol is going to result in confusion, inconsistencies, and the immediate need for variances and exceptions. Disregarding the VRM process or Section 106 process that ultimately finds its way to SHPO so that affects are seen differently than all other BLM Field offices will create inconsistent evaluation of the same resource. Alternative B exceeds BLM regulatory authority by, for example, changing avian seasonal stipulations and buffers that have been established by other agencies is beyond the scope of a land management agency.[comment end] | See Planning Criteria in Section 1.4 for applicable laws and compliance. Management actions for all four alternatives are identified in the DEIS for management action 6200-6210 lands considered available for ROWs. See Chapter 4.19 impacts analyzed for all four alternatives. Please see Maps 2-21 through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-54 | Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors. Bury distribution power lines to the extent technically feasible." These practices may not always be feasible. While new power line ROWs may be sited in existing energy corridors or along roads/highways, this may not always be practical or feasible depending on the length of the line, the surrounding land use, and the purpose/need of the line. For example, high voltage transmission lines can span hundreds of miles and there may not be corridors or other linear developments along the entire length of the route. If an existing transmission corridor is filled, there would not be room remaining in the corridor for a new line. Restrictions on corridor width limits would also impact the ability to co-locate lines in existing transmission corridors. These constraints could limit system reliability by forcing main grid transmission lines into a single corridor, rendering the entire system vulnerable to a local catastrophic event, such as a natural disaster, wildfire, plane crash, or act of terrorism. Lower voltage distribution lines, which are required to serve residential, commercial, or agricultural customers, typically tap off main lines to the customer, and the line route will be dictated by the end point service location. In such cases, there often may not be an energy corridor or other linear feature with which to co-locate. The BLM has also created a conflict within the draft RMP by including sections of the Wyoming Governor's transmission corridor in ACECs or ROW restriction areas. In addition to concerns with the co-location stipulation in this Appendix, PacifiCorp has concerns with the stipulation to underground power lines. | Management actions for all four alternatives are identified in the DEIS for management action 6200-6210 lands considered available for ROWs. See Chapter 4.19 impacts analyzed for all four alternatives. Please see Maps 2-21 through 2-24. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-55 | Installing new distribution lines underground or converting existing lines from overhead to underground may not be feasible in certain circumstances. In addition, burying power lines can result in greater ground disturbance during construction and repairs, longer outage periods for customers, increased cost, reduced reliability, and may not always be feasible from engineering and operations perspectives. Underground power lines would require continuous excavation through all habitat types. This is in contrast to overhead lines, which result in disturbance only at the structure locations and can span sensitive resources. Underground lines would also require excavation for repairs or maintenance, which would result in ground disturbance occurring temporally over the life of the line, not just during initial construction. Ground disturbance during construction, repairs, and maintenance of underground lines can result in large, permanent displacement of excavated soil and subsequent issues with re-establishing native vegetation and preventing the overgrowth of invasive species. Even in conditions where undergrounding is technologically feasible, there would be financial impacts to PacifiCorp and its customers, as | Management actions for all four alternatives are identified in the DEIS for management action 6200-6210 lands considered available for ROWs. See Chapter 4.19 impacts analyzed for all four alternatives. Please see Maps 2-21 through 2-24. |

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| | | undergrounding distribution lines can cost $600,000 to $1.1 million per mile, and possibly more, compared to $400,000 average for overhead distribution lines. Undergrounding transmission lines is typically not technologically feasible in remote areas, and would include all of the above impacts associated with undergrounding distribution, but at a much greater scale. Likewise, undergrounding transmission lines is cost prohibitive. Because of these considerations, PacifiCorp requests that the BLM remove undergrounding as a design feature that may be required, and instead allow utilities to determine if undergrounding lines is appropriate for their facilities and customers on a case-by-case basis. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-56 | "Equip tanks and other above-ground facilities with structures or devices that discourage nesting and perching of raptors and corvids." As discussed previously under the perch discourager section above, such devices are ineffective and have unintended negative consequences. Consequently, PacifiCorp recommends that this stipulation be removed from the Appendix or clarified that it does not apply to electrical infrastructure. | See Appendix A, A.1 Project Design Features and Best Management Practices, Introduction |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-59 | "Restrict the construction of tall facilities, distribution power lines, and fences to the minimum number and amount needed." As stated previously, power lines are sited and constructed to serve customers. By this nature, lines are already built only when necessary and cannot further be restricted without impacting our ability to serve customers. In addition, this stipulation conflicts with other resource stipulations throughout the draft RMP, as the length of lines and number of structures is often increased by routing around sensitive resources. Because this stipulation is contradictory with utility requirements to serve customers and BLM's other resource stipulations, PacifiCorp recommends that it be removed from the Appendix. | See Appendix A, A.1 Project Design Features and Best Management Practices, Introduction |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-62 | "Avoiding facility placement on steep slopes, ridge tops, and hilltops." As detailed above, line routing is determined by many factors and avoiding siting poles in all of these situations is impractical and could impact other resources. | See Appendix A, A.1 Project Design Features and Best Management Practices, Introduction |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13865-68 | "Remove roads, unimproved roads, two-tracks, and restore sagebrush habitat." As discussed previously, the need for utilities to access power lines is critical to the safe operation of the electrical grid. This access may include the use of improved or unimproved roads, or two-tracks. It is a violation of FLPMA to arbitrarily restrict or remove public access without notice or input. In order to prevent safety issues by restricting access, PacifiCorp recommends that the BLM modify the above stipulation to read: "Remove roads, unimproved roads, two-tracks, and restore sagebrush habitat, where this will not interfere with access to authorized ROWs or for safety purposes. The BLM will notify authorized users, including ROW holders, in the RSFO for any access road removal proposals, and provide adequate opportunity for public comment." | See Appendix A, A.1 Project Design Features and Best Management Practices, Introduction |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13880-3 | One of the many features that make federal land management in Wyoming unique is the presence of the "checkerboard" and the requirement for heightened consistency, trust, and cooperation between federal, state, and private land managers. The previously mentioned task force on the Rock Springs RMP recognizes this importance and voted for complete consensus on the following statement: "The task force does not support any special management area designations within the checkerboard except for existing Cedar Canyon and Natural Corrals, and Special Status Plant Species ACEC. The task force does recognize the importance of wildlife migration and winter range within the checkerboard." Beyond special designations, rights of way (ROW) stipulations have an oversized impact on the ability for the state and private citizens to access and utilize property within the checkerboard. From an energy perspective, the federal land in the checkerboard area that would be designated as ROW exclusion areas under the preferred alternative, and will have a significant impact on the placement of transmission lines, access roads, and pipelines by limiting access to oil, gas, and renewable sites, and restricting placement of facilities, pipelines, transmissions lines, communication facilities and roads. ROW exclusion areas in the checkerboard would preclude any type of development on adjacent private and state parcels because it will severely limit access to the sites and options for accessing the land or getting the product out. In order to comply with the mandate that a land use plan must "use and observe the principles of multiple use and sustained yield," the entire planning area should be open to consideration of granting ROWs as set forth in alternative D. This applies to management actions: 6201, 6202, 6207, and 6209.7 | Management actions for all four alternatives are identified in the DEIS for management actions 6200 thru 6210. See Appendix V Acreage Tables and maps 2-21 through 2.24. See Chapter 4.19 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13880-8 | Additionally, the BLM does not consider any potential impacts to renewable energy development in this draft RMP. This likely reflects the fact that the scope of analysis was determined in 2015. Excluding potential impacts on renewable development is at odds with the facts on the ground, with projections about likely renewable development under various "decarbonization" scenarios for the U.S. electric sector, and with the federal government's own policy priorities. An RFD for renewable energy development should be pursued by the BLM to give a full accounting of this RMP's impacts. A variety of NGOs, government agencies, and scholars have conducted detailed techno economic analyses of the U.S. electricity sector and energy system to provide spatially explicit projections of various pathways for the United States to "decarbonize" the grid by 2050, in line with current federal policy priorities. In contrast to BLM's 2015 analysis that merely maps raw wind and solar endowments in | Management actions for all four alternatives for renewable energy are found in MA's 6100-6108. See Chapters 4.20 for impacts analyzed for all four alternatives, for Renewable Energy. |

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| | | the RSFO, these models give a much more accurate picture of likely renewable energy development scenarios given current economic conditions and federal tax incentives. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13880-9 | Overlaying projected wind projects from Wu et al. (2023) with the Alternative BROW exclusions suggests that Alternative B would preclude the development of 509,000 to 3.2 million acres worth of potential wind projects in the RSFO, representing 5,760 to 36,790 MW of installed capacity.9 A full accounting of the economic impacts of wind development is beyond the scope of this comment, but some estimates suggest that wind projects generate a 1% increase in ongoing local employment for every 100 MW increase in installed wind capacity, as well as $7,000/MW in local property taxes and $3,000/MW in lease payments to landowners.10 Alternative B could lead to $56.7 million to $368 million worth of foregone local benefits annually from wind development. While these are rough estimates, they underscore the need to carefully consider and analyze potential renewable energy impacts in any serious impact analysis of the RMP. | Management actions for all four alternatives for renewable energy are found in MA's 6100-6108. See Chapters 4.20 for impacts analyzed for all four alternatives, for Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13880-10 | Finally, it is worth noting that Alternative B's impact on renewable development is at odds with existing federal priorities. Specifically, new tax incentives under the Inflation Reduction Act and the Bipartisan Infrastructure Law contain provisions designed to channel investment into communities that are historically disadvantaged and/or likely to be negatively impacted by a large-scale transition away from fossil fuels. While the BLM's analysis does discuss the former (EPA's Environmental Justice Communities) it does not consider the latter (DOE's Energy Communities), which may be much more relevant for the RSFO. In fact, all 8 census tracts in Sweetwater County, in addition to Census Tract 56013000301 in Fremont County, all qualify as "Energy Communities," making them eligible for additional federal support for renewable energy. At a high level, this puts the BLM's preference for Alternative Bat odds with crucial federal initiatives. More to the point, any commercial wind or solar projects in these 9 census tracts would qualify for a "stackable" 10% increase in the Production Tax Credit or a 10-percentage point increase in the Investment Tax Credit.11 This calls into question the BLM's assumption that wind development in the RSFO is unlikely, as well as gives credence to the scenarios projected by Wu et al. (2023). | Management actions for all four alternatives for lands and realty are found in MA's 6000-6015 and renewable energy are identified in the DEIS, MA's 6100 thru 6108. See Chapters 4.19 and 4.20 for impacts analyzed for all four alternatives, for Lands and Realty and Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13892-10 | The BLM's proposed ROW Exclusion area violates the Sublette County Federal & State Land Use Policy: "Discourage the prioritization of any one land use until after the impacts to other multiple uses are fully quantified and mitigated. Any proposal to close federal lands to a multiple use must be approved by Sublette County after a public hearing." | Management actions for all four alternatives for lands and realty are found in MA's 6000-6015 See Chapters 4.19 for impacts analyzed for all four alternatives, for Lands and Realty. Identified in Glossary definition of Multiple Use. Chapter 5 for coordination and consultation. See Section 1.5 Table 1-2 for plans considered. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13892-23 | How will ROW permit renewals be treated in ROW Exclusion areas? How will ROW permit renewals be treated in ROW Avoidance areas? | Management actions for all four alternatives for lands and realty are found in MA's 6000-6015 See Chapters 4.19 for impacts analyzed for all four alternatives, for Lands and Realty. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13895-2 | Finally, as a private landowner and lessee of other private lands in the area, there is serious concerns about how Preferred Alternative B impacts the ability to access and otherwise use and develop private and state lands due to the massive number of restrictions placed on neighboring public lands. The impact of ROW exclusion areas and restricting motorized travel to designated roads will have on grazing, and other multiple uses, is also not adequately addressed in the DEIS due to the BLM's failure to disclose the connected and foreseeable actions of future travel management planning and foreseeable road closures. Under Preferred Alternative B, the BLM is no longer managing for multiple use and sustained yield but instead closing-off public lands and unlawfully restricting access to state and private lands at the expense and to the detriment of providing healthy rangeland, forest systems, and watersheds. | See Section 1.4 for the Planning Criteria and private land management. Travel management and specific route designations is outside the scope of this RMP planning effort. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-80 | Of importance: In the public/private land checkerboard that runs east-west across the Rock Springs Field Office, we do not think rights-of-way exclusions are appropriate, except for Areas of Critical Environmental Concern and high potential segments of NHTs. The proposed Alternative B exclusion areas for Rights-of-Way in the checkerboard for National Historic Trails viewsheds, other historic trails, and big game winter range could be managed as avoidance areas so as not to obstruct necessary energy corridors or reasonable development in the Known Sodium Leasing Area. | Management actions for all four alternatives for lands and realty are found in MA's 6000-6015 and renewable energy are identified in the DEIS, MA's 6100 thru 6108. See Chapters 4.19 and 4.20 for impacts analyzed for all four alternatives, for Lands and Realty and Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-81 | We urge BLM to go further, however, by screening these lands with resource-based and technical exclusion criteria in order to identify areas where BLM will prioritize and facilitate wind development, and to a lesser extent solar development. Such areas, commonly known as designated leasing areas (DLAs), should have high resource potential, low resource conflict, and easy access to transmission infrastructure. Alternatively, if BLM is unable to complete the necessary analysis to identify DLAs and incorporate it into this planning process prior to signing the Record of Decision, BLM should expressly commit to working to identify DLAs for wind development within one year after issuing the ROD through a step-down planning process. | Management actions for all four alternatives for lands and realty are found in MA's 6000-6015 and renewable energy are identified in the DEIS, MA's 6100 thru 6108. See Chapters 4.19 and 4.20 for impacts analyzed for all four alternatives, for Lands and Realty and Renewable Energy. |
| 827 - Land Resources–Rights-of-Way | #13899-82 | BLM's ROW regulations, related policies and guidance, and prior programmatic planning documents specifically contemplate and encourage agency field offices to designate DLAs during land use planning, such as here.206 Indeed, the draft EIS expressly acknowledges this policy and recognizes the need to develop protocols for wind | Management actions for all four alternatives for renewable energy are identified in the DEIS 6100 thru 6108. See Chapter 4.20 for impacts analyzed for all four alternatives. |

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| and Corridors (6200-6210) | | and transmission planning in the Rock Springs Field Office.207 BLM should undertake this effort, either as part of this planning process or within one year of the ROD, because the presence of DLAs in the Field Office will incentivize responsible renewable energy development in preferred areas,208 ensure competitive leasing,209 and set the stage for the future tiering of project-level environmental reviews. This is not only consistent with the smart from the start approach to renewable energy development that we advocate but will also maximize revenues and result in a more efficient and predictable process for both BLM and industry. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-83 | BLM should therefore consider the non-exhaustive list of factors found at 40 C.F.R. § 2802.11(b) to determine whether to create any DLAs on the lands left open to wind and solar | See Section 1.4 for the Planning Criteria. Management actions for all four alternatives for renewable energy are identified in the DEIS 6100 thru 6108. See Chapter 4.20 for impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-84 | BLM should also consider its West-wide Wind Mapping Project, which mapped current exclusion areas and areas with potentially developable wind resources where environmental concerns or land use restrictions will require more extensive analysis. | Management actions for all four alternatives are identified in the DEIS for management actions 6100-6108 for renewable energy. Chapter 4, Section 4.20 analyzes the impacts for Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-85 | In addition, BLM should consider the four-step process for designating new solar energy zones set forth in the 2012 Western Solar Plan, which is as follows: ? Assess the demand for new or expanded DLAs; ? Establish technical and economic suitability criteria; ? Apply environmental, cultural, and other screening criteria; and ? Analyze proposed DLAs through a planning and NEPA process.213 Although BLM developed this process for solar energy zones in the six southwestern states, it is relevant here because the scope of the Western Solar Plan is currently being expanded to include Wyoming. Also, each of the four steps and the screening criteria for solar development can be adapted, as needed, to fit wind development.214 Indeed, BLM recently proposed a rulemaking that would add this four-step process to 40 C.F.R. § 2802.11(b), the regulation governing how BLM designates new DLAs for both solar and wind development. | Management actions for all four alternatives are identified in the DEIS for management actions for lands and realty 6000 thru 6015, and management actions 6100-6108 for renewable energy. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty. Chapter 4, Section 4.20 analyzes the impacts for Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-86 | n addition to the list of factors at 40 C.F.R. § 2802.11(b), the exclusion criteria described in the 2012 Western Solar Plan, and additional criteria such as resource potential and access to transmission infrastructure, we recommend a multivariate analysis to identify potential DLAs in the Rock Springs Field Office. | Management actions for all four alternatives are identified in the DEIS for management actions 6000 thru 6210, and management actions 6100-6108 for renewable energy. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty. Chapter 4, Section 4.20 analyzes the impacts for Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-87 | We urge BLM to take a similar approach to identify potential DLAs for wind and/or solar within the Rock Springs Field Office, either as part of this planning process or within one year of issuing the ROD. | Management actions for all four alternatives are identified in the DEIS for management actions 6000 thru 6210, and management actions 6100-6108 for renewable energy. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty. Chapter 4, Section 4.20 analyzes the impacts for Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-88 | Despite the expectation that BLM would consider the corridor modifications and other recommendations in the 2022 Energy Corridor Report during future land use planning, the draft EIS does not do so. Rather, under each alternative in the draft EIS, BLM would simply retain the existing corridors established in 2009 without modification,221 except that preferred Alternative B would eliminate Corridor 126-218 east of the Flaming Gorge National Recreation Area (NRA).222 BLM should consider and integrate the new information and recommendations set forth in the 2022 Energy Corridor Report. Additionally, BLM should be clear that while Section 368 corridors (aka West-wide energy corridors) were originally intended to facilitate transmission of oil, gas and hydrogen, pipelines for Carbon Capture Utilization and Storage (CCUS) should be sited in the designated 368 corridors as well, to reduce conflicts and increase efficiency in planning. The Section 368 corridors have been vetted as low conflict routes for pipelines regardless of the resource being transported. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-89 | Recommendations for Section 368 Energy Corridors in Rock Springs Field Office The 2022 Energy Corridor Report offered new information and made several recommendations for Section 368 energy corridors in the Rock Springs Field Office that BLM must consider during this land use planning process. According to the agencies, the recommendations struck the best balance in meeting the corridor siting principles. The 2022 Energy Corridor Report also recommended additions and revisions to the IOPs, including new IOPs to avoid or minimize impacts to wildlife habitat, lands with wilderness characteristics (LWCs), historic trails, and tribal concerns. The draft EIS does not consider these recommendations | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-90 | Consistent with the suggested framework and recommendations in the 2022 Energy Corridor Report, BLM must analyze the deletions, additions, and revisions to certain corridors and make these changes in the final RMP. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |

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| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-91 | BLM must consider the general siting guidelines set forth in the 2022 Energy Corridor Report to improve corridor placement and use in the Rock Springs Field Office.231 BLM must also consider the recommendation to develop corridor-specific management plans for corridors with potential resource conflicts. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-92 | Recommendations for Corridor 121-220 The 2022 Energy Corridor Report recommended shifting Corridor 121-220232 slightly to the south to align with the recently authorized right-of-way (ROW) for the Gateway West Transmission Line Project. The draft EIS does not consider this recommendation, however, and all the proposed alternatives would maintain the status quo with respect to Corridor 121-220. BLM must consider shifting the corridor slightly south to align with the Gateway West Transmission Line ROW, as generally depicted in Figure 3.5-88c of the 2022 Energy Corridor Report.233 | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-93 | The 2012 Settlement Agreement identified Corridor 121-221234 as a "corridor of concern" due to conflicts with sage-grouse habitat, visual resources, ACECs, and historic trails.235 Indeed, nearly fifty miles of the 63-mile Corridor 121-221 intersects greater sage-grouse priority habitat management areas (from approximately mileposts 0 to 15 and 28 to 60), and much of the corridor intersects or is adjacent to VRM Class II areas and the Cedar Mountain ACEC, White Mountain Petroglyphs ACEC, Greater Sand Dunes ACEC, Killpecker Sand Dunes, Boar's Tusk, and North and South Table Mountain, among other highly scenic places. This east-west corridor also lacks existing transmission infrastructure and is mostly redundant with east-west corridors to the south. For these reasons, we previously urged BLM to delete Corridor 121-221.236 Rather than deleting Corridor 121-221, however, the 2022 Energy Corridor Report recommended (1) shifting the corridor to follow an existing pipeline and partially avoid priority sage-grouse habitat, the Greater Sand Dunes ACEC, the Killpecker Sand Dunes, and VRM Class II areas; and (2) designating the corridor as underground only. These recommendations would not address most of the conflicts with sage-grouse habitat and would push the corridor into additional VRM Class II areas and adjacent to the South Pinnacles and Alkali Basin-East Sand Dunes WSAs.237 Nonetheless, the draft EIS does not consider any changes to Corridor 121-221. For the same reasons as before, BLM should delete Corridor 121-221. Alternatively, BLM should consider shifting the corridor in several places to avoid sensitive areas, designating it as underground only, and developing a corridor-specific management plan for this corridor of concern. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-94 | Recommendations for Corridor 121-240 and Gateway West Corridor Addition The 2022 Energy Corridor Report found that much of Corridor 121-240238 lacks existing infrastructure, is somewhat redundant with Corridor 218-240 to the south, and is adjacent to several historic trails. It also found that the authorized ROW for the Gateway West Transmission Line to the north better aligns with energy demand. The report therefore recommended deleting Corridor 121-240 and replacing it with a new multi-modal corridor to the north that aligns with the Gateway West ROW. The draft EIS does not consider this recommendation, however, and all the proposed alternatives would maintain the status quo with respect to Corridor 121-240.[...] BLM must consider deleting this corridor and designating a new corridor to the north that aligns with the Gateway West ROW, as generally depicted in Figures 3.5-90c and 3.6-8 of the 2022 Energy Corridor Report.239 | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-95 | Recommendations for Corridor 126-218 The portion of Corridor 126-218240 east of the Flaming Gorge NRA presents unavoidable conflicts with greater sage-grouse management areas, big game habitat, recreation, VRM Class II areas, and existing and proposed ACECs in the Greater Little Mountain area, including the Greater Red Creek ACEC. Corridor 126-218 also mostly lacks existing infrastructure. For these reasons, we previously urged BLM to delete this corridor.241 The 2022 Energy Corridor Report did not recommend any adjustments to Corridor 126-218, however, despite a draft recommendation to delete Corridor 126-218 between mileposts 62 and 109 (east of Flaming Gorge NRA) and to reroute this portion further east to align with either an existing pipeline or existing transmission line.242 Nonetheless, under preferred Alternative B, BLM now proposes to eliminate Corridor 126-218 east of Flaming Gorge.243 Again, BLM should delete the portion of Corridor 126-218 east of the Flaming Gorge NRA due to unavoidable conflicts with sensitive resource values and we fully support BLM's proposal to do so under preferred Alternative B. Alternatively, if BLM determines not to delete this portion of the corridor, it should reroute the corridor further east along the existing pipeline and Highway 191,244 which would still impact ACECs but is a better option than rerouting along the existing transmission line. Under no circumstances should Corridor 126-218 remain as is. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-96 | Recommendations for Corridor 129-221 The 2022 Energy Corridor Report recommended slightly shifting the entire length of Corridor 129-221246 to align with the authorized ROW for the Gateway West Transmission Line Project. The draft EIS does not consider this recommendation, however, and all the proposed alternatives would maintain the status quo with respect to Corridor 129-221. BLM must consider shifting the corridor as generally depicted in Figure 3.5-95c of the 2022 Energy Corridor Report.247 | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way | #13899-97 | i. Recommendations for Corridor 218-240 The 2022 Energy Corridor Report recommended shifting the portion of Corridor 218-240248 between mileposts 18 to 23 to the north so that existing infrastructure would form the southern edge of the corridor and the overlap with priority sage-grouse habitat would be reduced. The draft EIS does not consider this recommendation, however, and all the proposed alternatives would maintain the status quo | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |

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| and Corridors (6200-6210) | | with respect to Corridor 218-240. BLM must consider shifting the corridor slightly north to reduce overlap with priority sage- grouse habitat. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-98 | The 2022 Energy Corridor Report recommended shifting the entire length of Corridor 220- 221250 to align with the authorized ROW for the Gateway West Transmission Line Project. The draft EIS does not consider this recommendation, however, and all the proposed alternatives would maintain the status quo with respect to Corridor 220-221. BLM must consider shifting the corridor as generally depicted in Figure 3.5-112c of the 2022 Energy Corridor Report.251 | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13899-99 | Recommended additions and revisions to the IOPs The 2022 Energy Corridor Report recommended four new IOPs252 to avoid or minimize impacts to (1) ecological resources, such as habitat connectivity, wildlife migration corridors, sage- grouse habitat, and avian collision; (2) LWCs; (3) National Scenic Trails and National Historic Trails; and (4) Tribal concerns and ethnographic studies.253 The 2022 Energy Corridor Report also recommended revisions to existing IOPs related to visual resources, vegetation management, and agency coordination.254 BLM must consider a management action that adopts all the IOPs as best management practices for projects in Section 368 energy corridors located in the Rock Springs Field Office, including the new and revised IOPs recommended in the 2022 Energy Corridor Report. | The AMS (Analysis of the Management Situation) addresses data age in the EIS's Executive Summary page ES-1. MA #6206 and 6207 identify a range of alternatives for corridors. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13908-30 | 6206 D Add language from Alternative B regarding the corridor east of the Flaming Gorge through the Little Mountain area. Eliminate the existing corridor identified in the WWEC ARMPA/ROD (2009) east of Flaming Gorge in the planning area (126-218). | Management actions for all four alternatives are identified in the DEIS for management actions 6200 thru 6210. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13911-13 | The number of acres designated as ROW exclusion will have a significant impact on resource development, recreation, and livestock grazing, as well as conflict with current federal policy to advance renewable energy on federal lands. The Proposed RMP's overarching goal is to: "Manage public lands to meet transportation and ROW needs consistent with goals and objectives of other resources while supporting the national energy plans and policies." Compare DEIS at 2-115 (Mgmt. Action #6202 and Maps 2-22 and 2-24) with id. at 2-114 (Goal LR-06). But Preferred Alternative B directly conflicts with the Energy Act of 2020 and Executive Order 14008. The Energy Act of 2020 established a minimum goal of "authoriz[ing] production of not less than 25 gigawatts of electricity from wind, solar, and geothermal energy projects [on public lands] by not later than 2025." 43 U.S.C. § 3004(b). Executive Order 14008 sets the goal of reaching 100 percent carbon pollution-free electricity by 2030, net-zero emissions by 2050, and doubling renewable energy production on public lands by 2030. However, this goal will be difficult, if not impossible, to obtain if the BLM closes public lands to any new development or ROWs. | Management actions for all four alternatives are identified in the DEIS for management actions 6000 thru 6210, and management actions 6100-6108 for renewable energy. See Chapter 4.19 impacts analyzed for all four alternatives for Lands and Realty. Chapter 4, Section 4.20 analyzes the impacts for Renewable Energy. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13912-6 | There are six sections in the southeast corner of the KSLA in T15N R108W and T16N R108W that border the Rock Springs/Kemmerer Field Office boundary line that are not proposed ACECs, but are designated for Rights-of-Way exclusion in the BLM's Preferred Alternative B. Sweetwater holds the surrounding and intermingled surface and mineral rights with those six sections and this area holds some of the most prospective known remaining resources in the KSLA for a new greenfield trona mine. Any restrictions prohibiting the development of these sections in any way, would significantly impact the ability for the privately owned sections to be mined, for a new greenfield mine to be built in this area and would significantly impact Sweetwater, the local community, and the State of Wyoming financially and socially. | Management actions for all four alternatives are identified in the DEIS for management actions 6000 thru 6210. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13912-8 | The proposed Rights-of-Way exclusion designations across the heart of the checkerboard in the Rock Springs Field Office management area in the map below, are checkerboarded with, encapsulate, surround, and or prevent access to a significant amount of Sweetwater's private surface and mineral estate, thereby making them inaccessible and prohibiting Sweetwater from any economic use of them. Even where the BLM right-of-way exclusion zone does not directly overlap with Sweetwater private lands, the exclusion zones foreclose access for transmission or other infrastructure needed for development in those areas. Sweetwater has numerous projects in various stages of development throughout these lands, including renewable energy, carbon sequestration and lithium mining. BLM restrictions that foreclose access to, and the economic use of, Sweetwater's private land and mineral estates amounts to a taking without just compensation in violation of the U.S. Constitution. | See Section 1.4 for the Planning Criteria and how this plan relates to private lands. Management actions for all four alternatives are identified in the DEIS for management actions 6000-6210. See maps 2-21 through 2.24. See Chapter 4.19 for the impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13923-7 | For portions of the Greater Little Mountain Area, sportsmen are requesting ROW exclusion. The impetus for this is to limit industrial scale projects that could do potential environmental harm by disrupting sensitive soils. The ROW exclusion should not, however, impact small scale agricultural operations who are in good standing with the BLM. These small operations should not be in the same category as industrial scale transmission lines, pipelines, and roads, etc. We encourage the BLM to revisit the Rights-of-Way policy to differentiate between industrial scale and small scale operations. | Management actions for all four alternatives are identified in the DEIS for management actions 6000 thru 6210. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way | #13923-22 | For Management Action #4418, we support Alternative B that will prohibit renewable energy development projects in crucial habitat. Additionally, because these resource values are not compatible with wind energy development, ROW authorizations should not be issued within these areas. This is congruent with the 2005 Final Wind Programmatic Environmental Impact Statement and should be consistent in the planning area. | Management actions for all four alternatives are identified in the DEIS for management actions 6000 thru 6210. (Renewable Energy Management actions are found 6100-6108). Chapter 4.19 impacts analyzed for all four alternatives |

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| and Corridors (6200-6210) | | | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13925-1 | Many, if not all, of the management actions in the Preferred Alternative B will significantly impair RSGA's rights to use its land, to access to its lands, and to exercise its legal rights, including rights-of-way. The combined restrictions effect an unconstitutional and uncompensated taking. Knick v. Township of Scott, PA, 139 S.Ct. 2162 (2019) (holding claim of right to access property for public to visit grave sites effected a compensable takings). The Supreme Court wrote "A property owner acquires a right to compensation immediately upon an uncompensated taking because the taking itself violates the Fifth Amendment." Id. at 2169. See also North Mill Street, LLC v. City of Aspen, 6 F.4th 1216, 1224 (10th Cir. 2021) (When regulations "deprive an owner of 'all economically beneficial use' of her property' it will be recognized as a taking." (quoting Lingle v Chevron U.S.A., Inc., 544 U.S. 528, 537 (2005)). The BLM must remove all rights-of-way exclusion areas within the Checkerboard and other restrictions that impair RSGA's land rights. | Management actions for all four alternatives are identified in the DEIS for management action 6000 thru 6210. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13927-3 | Right of ways (ROW) are another issue that deserves greater consideration, including distinguishing between industrial ROW (e.g., transmission corridors) versus small ROW necessary for maintaining traditional land uses (e.g., water lines to serve livestock tanks). Within the GLMA, ROW exclusion is appropriate for new industrial-scale ROW. However, we encourage the BLM to consider the unintended consequences of ROW exclusion for small-scale infrastructure and existing traditional land uses and clarify that exclusions only apply to industrial new ROW. Trout Unlimited worked directly with the Ramsay Ranch to improve their irrigation infrastructure on BLM lands. This project stopped an active head cut allowed the ranch to maintain their water rights, allowed for fish passage, and improved trout habitat. BLM was a funder on this project. This project has a BLM ROW and would be in jeopardy if the Preferred Alternative were to be adopted for this management action. | See Glossary for definitions of ROW exclusions and avoidance areas. Management actions for all four alternatives are identified in the DEIS for management actions 6200 and 6210. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives. See Section 1.4 for Planning Criteria in reference to valid existing rights. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13940-6 | Preferred Alternative B also proposes ROW exclusion areas within the Checkerboard. See id. at Map 2-22. JRB objects to these designations due to the impact it will have on the alternating sections of private lands and state lands. ROW exclusion areas infringe on private property rights by preventing the ability to access the private and state lands and to develop them when infrastructure (i.e. roads, pipelines, electric lines, etc.) cannot be placed on the neighboring public lands. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #13951-10 | Page 2-642; Map 2-22 "Restrictions on Rights - of - Way" -I am against all closed roads. Infrastructure is huge when planning and running a city, county, state, and a country. The BLM needs access for administration of our allotments. Firefighters need access to fight the inevitable. Ranchers need access to care for their livestock and properties. The list is endless…search and rescue, hunters, fisherman, recreationists, etc.. | See Section 1.4 for the Planning Criteria and private land management. Travel management and specific route designations is outside the scope of this RMP planning effort. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14023-7 | I recommend that no new roads be constructed within the District unless speci?cally approved through a special use permit. | Management actions for all four alternatives are identified in the DEIS for lands and realty management actions 6000-6015 and 6210. See Chapter 4.19 impacts analyzed for all four alternatives. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14026-2 | BLM's preferred alternative, which maximizes conservation at the expense of other uses, could have devastating effects on electric reliability and affordability; public health and safety; and the well-being of communities throughout the west and may set detrimental precedent for BLM public land management across the nation. It is critical that BLM conducts its due diligence on the potential effects of this proposed alternative, including undertaking a thorough Regulatory Flexibility Act analysis, and by issuing a detailed Statement of Energy Effects.6 NRECA encourages BLM to work with stakeholders in the electricity sector and throughout communities in the region to understand the real-world impacts of each alternative, and to best balance those impacts and the goals of the preferred alternative under the existing mandate of Multiple Use and Sustained Yield under FLPMA.7 | Management actions for all four alternatives are identified in the DEIS for management actions 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives. See also Chapter 1, Section 1.4 Planning Criteria. Section 4.22 addresses socioeconomics impacts. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14026-3 | BLM proposes in this alternative, among other restrictions, to increase the size of Areas of Critical Environmental Concern (ACECs) in the region from the current 286,470 acres to over 1.605 million acres-44% of the 3.6 million acres covered by this Draft RMP/EIS.9 ACECs historically are managed to limit uses such as recreation, mineral and oil and gas production, agriculture, and electricity infrastructure siting. NRECA urges BLM to withdraw this proposed ACEC designation; or, if BLM proceeds with the designation, it should work with all stakeholders in the region to determine the appropriate size of the ACEC and to allow major and principal uses as detailed under FLPMA to continue in that region. NRECA further requests detailed information about how the preferred alternative's ACEC designation would affect electricity transmission, distribution, and project siting in the area, as well as how it may impact access to Rights-of-Way ("ROW") and vegetation management and grid hardening practices. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way | #14026-4 | Under the preferred alternative, BLM also would drastically restrict land available for electricity transmission and distribution by closing off over 2.4 million acres to Rights-of-Way and by prohibiting the creation of new transmission corridors.10 Restrictions on ROWs and transmission siting across such a large swath of the western United States may jeopardize the ability of the electricity sector to meet the growing needs of an ever-more | Management actions for all four alternatives are identified in the DEIS for management actions 6201 thru 6210. See maps 2-21 through 2.24. See Chapter 4.19 and 4.20 impacts analyzed for all four alternatives. See also Chapter 1, Section 1.4 Planning Criteria. Section 4.22 addresses socioeconomics impacts. |

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| and Corridors (6200-6210) | | electrified society, and to incorporate new and renewable sources of energy into the grid. Further, precluding the development of new transmission corridors does not effectively take into consideration the need for redundancy of some electrical transmission to ensure reliability for entire regions. NRECA urges BLM to refrain from placing any limitations on electricity ROWs and new transmission corridors. Should BLM select the preferred alternative as detailed in the Draft RMP/EIS, NRECA requests detailed information about the precise limitations on ROWs and transmission corridors, and the geographical areas where these limitations will exist. | |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14026-5 | BLM's preferred alternative also would impose restrictions on ROW width; and on the height and color of transmission infrastructure; and it would require undergrounding of distribution infrastructure.11 This alternative appears to have been drafted without due consideration of public health and safety regulations, nor with the advice of electricity stakeholders. Federal and industry safety and reliability standards govern the width of ROWs; and the height, color, materials, and construction of transmission and distribution infrastructure; and the conditions in which line undergrounding is appropriate and feasible depend on the location, geology, and engineering consideration of the area in question. The costs of meeting these requirements, even if they were somehow geologically and technically feasible everywhere, could cause severe financial distress for co-ops, which operate at cost and with extremely limited financial margins. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives. Section 4.22 addresses socioeconomics impacts. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14026-6 | Adding unnecessary complexity, cost, and mandates on electricity infrastructure may chill investment in grid hardening and expansion, at a time of high wildfire risk and increased electrification of the nation. NRECA urges BLM to refrain from imposing any such requirements on electrical infrastructure in the final RMP/EIS. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives. Section 4.22 addresses socioeconomics impacts. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14026-7 | NRECA also is deeply concerned about the possible restrictions imposed by the preferred alternative upon access to electricity ROW infrastructure for operations and maintenance activities. As BLM is aware, routine inspections, repairs, and vegetation management of the electrical system is critical for public safety, wildfire mitigation, and continued electric reliability. Utilities already face challenges and prolonged BLM approval processes to conduct these routine activities. Should this RMP/EIS limit access to electricity infrastructure and further complicate vegetation and grid hardening processes, risk of wildfire, outages, and other adverse events could increase. NRECA urges BLM to retract any potential limitations on ROW access and instead use this RMP process as an opportunity to improve utility access to their ROWs and to expedite and ease vegetation management and grid hardening processes on BLM-managed lands. NRECA encourages BLM to work with the electricity sector to understand vegetation management processes and access needs in the region and to incorporate those insights into the Final RMP/EIS. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14036-1 | companies have projects awaiting construction that are already approved and authorized in existing ROWs that would be impacted under Alternative B. To ensure EEI member companies can continue to fully utilize, manage, and maintain existing critical infrastructure, and construct already approved clean energy facilities in authorized ROWs, BLM should revise the Draft RMP/EIS. | Management actions for all four alternatives are identified in the DEIS for management action 6201. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives. See Section 1.4 for Planning Criteria in reference to valid existing rights. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14036-2 | Electric companies require access to distribution and transmission power lines and substations for activities including inspections, operations and maintenance, vegetation management, and wildfire prevention. Access to company facilities is critical for the safe and reliable operation of the electric grid. Under Alternative B, "areas managed as exclusion areas for ROWs would increase to 68% of the planning area and areas managed as avoidance areas for ROWs would decrease to 4% of the planning area."22 This general reduction of existing access across the territory could reduce electric company access to infrastructure, resulting in public safety, security, and wildfire risks. Many power lines do not have designated access roads; rather, the electric company receives a ROW grant and uses public access routes to access facilities. | Management actions for all four alternatives are identified in the DEIS for management action 6201 and 6202. See maps 2-21 through 2.24. See Chapter 4.19 impacts analyzed for all four alternatives. See Section 1.4 for Planning Criteria in reference to valid existing rights. |
| 827 - Land Resources–Rights-of-Way and Corridors (6200-6210) | #14038-1 | ll current roads and trails need to remain open. These roads provide access for recreation, managing allotments, emergency response, hunting, mineral production, and many other uses. In an area of 3.7 million acres, there should be a substantial amount of roads that are permitted as well as maintained. Proposed ACEC's threaten routes and access for various user groups. These areas have a historical use and closing them is shutting the local communities off from their history. The environmental impact of the current transportation network is mitigated by the small number of current routes and open OHV areas. These roads, trails and recreation areas are crucial for the local economy for communities such as Lyman and Sweetwater County and other small communities that rely on access to the planning area. The U.S. Bureau of Economic Analysis showed that in 2021 the outdoor recreation industry brought in $821 billion nationwide. By limiting access to this area the BLM could be harming the local economy and robbing them of potential income. Giving preferential treatment to one user groups over another is against the BLM's multiple use mandate and permit. | See Section 1.4 for the Planning Criteria and private land management. Travel management and specific route designations is outside the scope of this RMP planning effort. |
| 827 - Land Resources–Rights-of-Way | #14038-3 | In April 2022 the Department of Interior released it's Equity Action Plan which addresses the lack of access on public lands. In order to advance equity of access on public land for those with mobility impairment disabilities, it is important to recognize that discrimination towards Americans with disabilities within federal land management agencies is deeply rooted and hidden in plain sight. Recreation, primarily motorized recreation, has taken a | Management actions for all four alternatives are identified in the DEIS for Recreation for management actions 6502 and 6503. See Chapter 4.17 for impacts analyzed for all four alternatives. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management |

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| and Corridors (6200-6210) | | backseat to conservation and protection. Motorized recreation is often the only way those with mobility impairment disabilities are able to access public lands. BLM should ensure that the plan complies with the Department of Interior's Equity Action Plan, which recognizes that restrictions on motorized access to public land create barriers of access to those with disabilities. | decisions are outside of the scope of this DEIS. Accessibility equipment that is credibly assured to be in use in assisting a disability does not fall under the definition of 'OHV'." |
| 828 - Land Resources–Backcountry Byways(6300-6306) | #13600-9 | MA#6305, p.2118: Consider adding a Cherokee Trail back country byway. The Cherokee Trail is eligible for eventual NHT status—we want to see it remain undamaged, protected and preserved. | See Management Actions 6300-6306 for a full range of alternatives analyzed regarding potential designations of Backcountry Byways. Note that Back Country Byways are for motorized use. |
| 828 - Land Resources–Backcountry Byways(6300-6306) | #13776-6 | On a related note, closing existing scenic and backcountry routes (Management Actions 6303 and 6304) is wasteful; the routes are already developed and utilized so maintaining them per Alternative A seems prudent. | See Management Actions 6300-6306 for a full range of alternatives analyzed regarding potential designations of Backcountry Byways. |
| 828 - Land Resources–Backcountry Byways(6300-6306) | #13974-6 | On a related note, closing existing scenic and backcountry routes (Management Actions 6303 and 6304) is wasteful; the routes are already developed and utilized so maintaining them per Alternative A seems prudent. Management Action 6308 incorrectly references 6318 with regard to interpretive and directional signage; language from Alternative A could be merged with Management Action 6302. | See Management Actions 6300-6306 for a full range of alternatives analyzed regarding potential designations of Backcountry Byways. See updates to Management Action 6305 to edit erroneous reference. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #47-1 | I question whether Alternative B is sufficient in terms of ensuring adequate future management of livestock grazing to protect vulnerable resources. This grazing can degrade rangeland health, aid in invasive weed infestations, remove forage needed by wildlife, and destroy fragile riparian vegetation. I believe that BLM should identify those grazing allotments that are degraded or have serious resource impacts and then recommend them for permanent retirement. The existing grazing permits for those allotments could be acquired or allowed to expire without renewal. | Management Action 6404 provides livestock management actions that may be taken to address areas that do not meet the Wyoming Land Health Standards. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #332-2 | The intended purpose of the release of a draft plan is to provide a wide spectrum of options while identifying as a Preferred Alternative a balanced approach that meets the BLM multiple use mandate. This approach then enables all interests to recommend meaningful substantive changes to that alternative. The current Alternative B is so completely detrimental to multiple use, including livestock grazing, that it does not even lend itself to constructive comment. It completely fails to recognize the importance of the expertise and commitment of local interests, including local BLM personnel, to management of these lands. | As stated in Section 1.2.1 of EIS, "The Rock Springs RMP will address changing needs of the planning area by updating information and revising management goals, objectives, and decisions while ensuring that public lands are managed according to the principles of multiple use and sustained yield as identified in the Federal Land Policy and Management Act (FLPMA) of 1976 while maintaining the valid existing rights and other obligations already established." All management actions were developed to meet the requirements of FLPMA, including the multiple use and sustained yield mandate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #478-1 | The BLM claims that riparian zones, or lush patches of vegetation nears small streams, need to be protected from cattle grazing. I would like to note that the ranchers have been involved with developing riparian areas throughout Wyoming. | Impacts to riparian area from livestock grazing activities are discussed in Section 4.6 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #506-1 | BLM should ensure that any future livestock grazing is properly managed to protect native pollinators. In some areas of high potential conflicts or degraded lands, it may also be appropriate to not renew existing grazing permits and to find those allotments no longer available for grazing in the revised RMP. | See updates to Section 4.6 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #531-2 | Also, prescriptive management in the form of targeted management would be the most effective management that doesn't severely impact large areas of land. For example, Steamboat Mountain ACEC should be managed for targeted areas of interest, not simply increasing the size of the ACEC acreage by ten-fold. | Management Actions 7516 through 7529 describe management within the Steamboat Mountain ACEC. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #537-3 | As with most of the EIS's BLM has done, they continue to ignore the fact they do not have the staff to meet the needs outlined in the Alternatives. For instance, if a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease up to three consecutive years (60%) in active AUMs until land health standards are met. If they did implement it would be on inadequate data. BLM's Rangeland Health Standards (RLHS) are at least 20+ years old. | Staffing of BLM personnel is outside the scope of this Resource Management Plan revision. See Section 1.3 for Planning Criteria of this land use planning process. |
| 829 - Land Resources– | #539-1 | Surface disturbing activities may be either authorized or prohibited (WY IB-2007-029).20 These definitions appear to be targeted towards restricting oil and gas activities, but the way in which they are worded could restrict our | Impacts to livestock operations associated with these various management actions are provided in Section 4.16 of the EIS. |

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| Livestock Grazing Management (6400-6417) | | grazing operations. For example, under Volume 2, Appendix B, the RMP allows for no surface disturbing activities within 3 miles (!) of the Continental Divide Trail, the visual horizon, the continental divide snowmobile trail, or the south pass cross country ski trail.21 Under the current definitions noted above, grazing could be considered as a way that "vegetation" or "soil resources" could be "altered." The big game migration corridor ACEC does not allow ANY surface disturbance activities for any reason. Even if the BLM determines that grazing itself is not a surface disturbing activity, it is certainly possible that most rangeland improvements and efforts to doctor sick livestock could be. This would be detrimental to our grazing operations because the big game migration corridor ACEC runs directly through our allotments and the continental divide snowmobile trail would apply to half a mile of our little prospect allotment, which is a significant chunk of grazing rangeland. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-2 | This protocol would actually be detrimental to wildlife (ironic because it is titled "big game migration corridor") and according to the BLM's own science in the DEIS, rangeland improvements help the local wildlife.22 LSGA would encourage the BLM to specifically allow grazing and rangeland improvements under these restrictions by listing them as an exception to these rules in the plan. | Proposed management actions for all four alternatives considered for the proposed Big Game Migration Corridor can be found in actions 7555 - 7562. Impacts from all four alternatives can be found in Chapter 4. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-3 | The next ACEC issue is that the South Wind River ACEC and the Big Game Migration Corridor ACEC likely violate PRIA and the TGA. As noted above, the congressional intent of PRIA is to "prevent economic disruption and harm to the western livestock industry." The TGA created grazing districts (which FLPMA specifically kept in existence) and the Secretary has already deemed that these districts are "chiefly valuable for grazing," meaning that the primary purpose of the lands in these districts are for livestock grazing, even over other purposes such as wildlife, conservation, plant habitat, etc. | As stated in Section 2.1 of the EIS "The alternatives represent reasonable approaches to managing resources and activities consistent with law, regulation and policy." See also Appendix E. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-4 | Appendix N of Volume 2 outlines the economic analysis of the plan. However, this analysis is lacking and has failed to take a "hard look" at what economic disruption the management prescriptions in this plan would have on the livestock industry. For example, as discussed supra, grazing could be reduced by 20% in riparian areas within the ACEC if the BLM determines an allotment is not meeting the BLM's rangeland health standards, or due to restrictions related to the ACEC itself, AUMs or rangeland improvement projects could be hamstrung which could significantly affect our grazing operations and these kinds of affects were not looked into under Alternative B. We attest that significant reductions in AUMs would run our operation out of business and a further economic analysis should be done under the circumstances presented under Alternative B. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-5 | Wind River Front West: Historic: Buckskin Crossing Cemetery. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA, bluehead sucker, flannelmouth sucker, round-tail chub, limber pine. South Wind River: Cultural: NHT. Wildlife: big game crucial winter range, designated Sublette mule deer migration corridor. Special Status Species: sagegrouse PHMA, bluehead sucker, flannelmouth sucker, and round-tail chub. Paleontological resources: middle Eocene fossil resources. Scenic: panoramic landscape. Big Game Migration Corridor: Cultural: NHT. Wildlife: designated Sublette mule deer migration corridor, big game crucial winter range, big game parturition. Special Status Species: sagegrouse PHMA.25 These values should not result in the heightened scrutiny of an ACEC designation for the following reasons. First, when the BLM is seeking to protect the historic and cultural values mentioned such as historic trails, cemeteries, etc., it seems extraordinarily arbitrary and capricious to designate a vast 374,710 acre land restriction rather than to make a small- targeted--ACEC for each of these areas. Or by contrast there could be specific protections through management prescriptions offered for these cultural and historic resources by simply putting guidelines for these specific resources in this RMP. Furthermore, having surface disturbance restrictions near trails such as NHT or CDNST to the tune of having multiple miles of buffer is an incredibly broad amount of land needed to "protect and prevent irreparable damage" to an area. | Appendix C of the EIS provides a report that details the evaluation of each ACEC. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-6 | Next, with regard to wildlife, the BLM should remember that the State of Wyoming is responsible for management of its wildlife in this jurisdiction. While the BLM does have a responsibility to manage the landscape, one would think that before designating vast ACECs, the BLM would seek whether the Wyoming Game and Fish Department would think it was a good concept. For example, it was the State of Wyoming, after all, that designated the sublette mule deer migration corridor. In doing so, the State's report noted that "[m]aintaining the integrity of ranching operations will benefit the continued movement of animals across the landscape, and consequently efforts to conserve ranches within the migration corridor will conserve the corridor itself."26 Additionally, if an ACEC can be designated to protect big game populations and their accompanying corridors, then the entire western United States could be designated as one big ACEC. Therefore, LSGA requests that this line of reasoning for designation either removes the ACEC or sets aside specific exceptions to allow for continued livestock grazing as it has been done along with rangeland improvements. By the BLM's own analysis, rangeland improvement projects benefit wildlife.27 | Proposed management actions for all four alternatives considered for the proposed Big Game Migration Corridor can be found in actions 7555 - 7562. Impacts from all four alternatives can be found in Chapter 4. ACEC criteria can be found in Appendix C |
| 829 - Land Resources–Livestock | #539-7 | Another wildlife value the BLM is using to justify these ACEC designations is the fact that these areas are sage grouse PHMA. The science on this matter is not clear according to recent studies coming out of CSU and USU.28 However, early data shows that, if managed properly, grazing can actually be a positive for sage grouse | Appendix C of the EIS provides a report that details the evaluation of each ACEC. The Greater Sage Grouse Amendments from 2015 and 2019 have been incorporated into the EIS as part of Alternative A. |

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| Grazing Management (6400-6417) | | populations. In addition, the BLM and USFWS, and scores of cooperators are currently working on a sage grouse plan for the western states that will address the sage grouse issues and therefore LSGA recommends that 25 RMP/DEIS, Vol. 2, Appendix C, C.17-C.19. It states in part that water related rangeland improvements were "installed to benefit livestock that graze the forage but many also benefit wildlife and generally promote improved rangeland health within the planning area." the BLM not use sage grouse as a reason to designate vast ACECs, but rather it should let the concurrent process work itself out first. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-8 | Ultimately, Congress intended for the BLM to only use ACECs to "protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." Livestock grazing in Wyoming has been going on since the mid-1800s.29 Before that, bison and wildlife have always grazed the landscape.30 To think that livestock grazing could create irreparable damage to the landscape is not only arbitrary and capricious, but ahistorical. Because of this, we ask the BLM to rescind the Big Game Migration Corridor ACEC and the South Wind River ACEC. If the BLM will not do that, we at least ask that livestock grazing be given exceptions to strict management protocols that would restrict our livestock operations and would restrict surface disturbance activities related to livestock grazing. | Appendix C of the EIS provides a report that details the evaluation of each ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-10 | In LSGA's situation, the BLM has made the determination that our Little Sandy allotment is not meeting the BLM's riparian habitat standards, citing livestock use as the central cause.32 The punishment for not meeting the BLM's rangeland health protocols are a 20% reduction in AUMs for up to 3 years.33 This is an extremely frustrating item to see in the RMP because LSGA is on the phone and meeting with our range conservationist either weekly or bi-weekly and this has never come up in our conversations in terms of what a riparian habitat is and its regulatory consequences. There are no maps available showing where the riparian areas are. The lack of transparency as to what ranchers are being charged with is shocking. We can only assume that the BLM considers the Little Sandy as a riparian area and much of that is private. | Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-11 | Further, in conversations with our range conservationists, we have come to believe that the elk and deer degrade that water stream far harder than livestock, especially in the winter months. We request that the BLM show us proof of this declaration. If it cannot do so, we request that this be removed from the plan. Further, even if for some reason this were true, the punishment for failing to meet rangeland health standards under this provision is arbitrary and capricious because this punishment does not match the congressional intent of PRIA and the TGA. | Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-12 | The congressional intent of PRIA is to "prevent economic disruption and harm to the western livestock industry." The TGA created grazing districts (which FLPMA specifically kept in existence) and the Secretary has already deemed that these districts are "chiefly valuable for grazing," meaning that the primary purpose of the lands in these districts are for livestock grazing, even over other purposes such as wildlife, conservation, plant habitat, etc. LSGA and its individual ranchers could not remain in business with a 20% reduction in AUMs for three years. | Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-13 | For MA 6404, Alternative D makes the most sense and we oppose Alternative B for the reasons discussed in Section III(b) of this comment letter. MA 6405 would be nearly unmanageable for the BLM. In determining a stocking rate of between 21%-40% on each allotment would be difficult and speculative to access. Furthermore, the remedy to reach that level of stocking could de facto cancel AUMs. MA 6406 would be a violation of the TGA. As discussed above, Wyoming TGA grazing district 4 has been accessed as "chiefly valuable for grazing" and therefore the primary use of the land is for grazing and not for wildlife management experiments (which is what the BLM appears to be doing). | Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-14 | MA 6411 has prescriptions that prohibit mineral block supplements within ½ mile of certain water sources, within 3 miles of an NHT, or within ¼ mile of a special species plant population. These are extremely long distances and LSGA would assert that there is no scientific or factual basis for these distances. The BLM should reconsider these arbitrary and capricious management prescriptions and come back to the table in the final RMP with more reasonable distances, | Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. Also note that Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-15 | Under the Special Designations section, specifically as it relates to ACEC MAs, LSGA sees a number of troubling management prescriptions. First, we would attest that MA 7402 would violate the TGA because the BLM is prioritizing watershed stabilization/improvement and wildlife over grazing. We similarly argue that MA 7414 &; 7423 would also violate the TGA for the same reason. | As stated in Section 2.1 of the EIS "The alternatives represent reasonable approaches to managing resources and activities consistent with law, regulation and policy." |
| 829 - Land Resources–Livestock Grazing | #539-16 | The last matter that LSGA would like to discuss is the BLM's assertion throughout the entirety of the document that livestock grazing contributes to landscape health degradation. And while the BLM does concede that certain rangeland improvements benefit wildlife (such as water projects), there is an increasing mountain of evidence emerging that grazing itself, when managed properly, actually improves the land.34 Professor Peter Byck from Arizona State University is currently in the final stages of premiering a documentary-series on CNN that will | Impacts to vegetation communities from grazing activities are described in Section 4.6 of the EIS. |

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| Management (6400-6417) | | discuss livestock grazing's benefits to the landscape.35 In essence, research is showing that North America developed its rich topsoil due to the presence of over 100 million buffalo grazing on the landscape. Livestock's contribution is a key part of the ecosystem, and if the BLM would look further into the emerging body of science, it would see that its new found strict approach to grazing would be harmful to the landscape for generations into the future. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #539-17 | Sweetwater County believes that the objectives of special designations can be met by well-planned and managed development of natural resources. For this reason, special designations established in a plan need to be based on identified need and supported by verifiable scientific data available to the public. A special designation must show that protection cannot be provided by other means and that the area in question is truly unique compared to other area lands. The area classified shall be the smallest area necessary. | Please refer to Section 3.22 of the EIS for a description of special designations. Appendix C of the EIS provides a report that details the evaluation of each ACEC. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #540-1 | It must also be noted that, to the extent BLM relies on the Consent Decree of 2013 as justification for planning wild horse management and livestock grazing as part and parcel of one another, the 2013 Consent Decree has expired and is no longer in effect. The 2013 Consent Decree should not be considered by BLM when selecting locations to be designated as ACECs. | Appendix C of the EIS provides a report that details the evaluation of each ACEC. See also Section 1.4 for the planning criteria and Chapter for details about specific management actions related to wild horse management and livestock grazing. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #540-2 | BLM should consider the harmful effects of livestock grazing and the benefits to the range of wild, free roaming horses, ensuring that wild horses are given priority over livestock grazing when ACECs overlap with wild horse HMAs and other lands on which wild horses roam. Often, where there is ecological degradation to the range, BLM will place fault on wild horses and prioritize their removal, to the benefit of livestock grazing and contrary to the WHBA and the goal of the RMP/EIS. However, a report by Public Employees for Environmental Responsibility (PEER) noted that BLM's own records show that cows outnumber horses on BLM lands by a ratio of 30 to 1.14 "Of the lands that failed to meet [Land Health Standards], BLM reported that in 72% of cases, 'a significant cause' was livestock grazing."15 This equates to approximately 40 million acres of BLM land [nationwide] that is failing due to overgrazing of livestock.16 Limiting livestock grazing also helps protect the natural habitats of elk, deer, moose, pronghorn, and other rangeland wildlife. | The impacts of grazing activities on vegetation communities are provided in Section 4.6 of the EIS. Impacts related to the ACEC designations, wild horse management, and livestock grazing can be found in Chapter 4 for all four proposed alternatives, including those for non-designation of a proposed ACEC. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #540-3 | BLM should also consider the benefits to the range by limiting livestock grazing in the ACECs and the planning area, allowing for thriving wild horse populations that are highly beneficial to the rangeland.17 Studies demonstrate that equids support healthy ecosystems on public land if given sufficient habitat and left alone (Lundgren et al., 2021; Lundgren et al., 2017; Downer 2014). Wild horses spread plant seeds over large areas where they roam and do not decompose the vegetation they ingest as thoroughly as ruminant grazers, such as cattle or sheep, allowing the seeds pass through their digestive tract intact into the soil fertilized by wild horse droppings. Wild horses also help to prevent catastrophic fires and help to build more moisture-retaining soils. Soil moisture dampens out incipient fires and makes the air coating the earth moister. | The impacts of grazing activities on vegetation communities are provided in Section 4.6 of the EIS. Impacts related to the ACEC designations, wild horse management, and livestock grazing can be found in Chapter 4 for all four proposed alternatives, including those for non-designation of a proposed ACEC. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #548-3 | page 2-119, Alternative B, reads, "If a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease..." What is the definition of a causal factor? 10% caused by livestock? 1%? 0.0002%? Specific values are needed to avoid subjective and arbitrary decisions. | Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #3188-1 | livestock aum's should be available to ranch landowners with the right to use them as long as the vegetation is available. yes in dry years they should be reduced. | Management Action 6404 proposes four alternatives for the number of AUMs available for use by livestock within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #3188-2 | salt and minerals for livestock can be put in areas safe from water sources to limit the amount of traffic to streams. but remember that even antelope deer and elk will take advantage of the salt and minerals available. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing | #4026-20 | Chapter 4.16.1 Livestock Grazing Management, Assumptions. I feel an additional assumption concerning springs and seeps should be added to this section. Before a seep or spring is included in a range improvement program, the BLM should do an extensive investigation of the hydrologic, biologic, and cultural significance of that feature. In many cases, other resource values will outweigh the positive impacts of spring development. This assumption | Management of livestock grazing within the Resource Area are provided in Management Actions 6400-6417. The BLM would continue to follow all applicable laws, including the National Environmental Policy Act, when planning and constructing projects. |

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| Management (6400-6417) | | could be worded as: "Seeps and springs can possess unique hydrologic, biologic, and cultural values and not all of these features are suitable for range improvement." | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9354-3 | 4111 Alternative B "Rest all treated areas a minimum of five growning season from livestock grazing. This will put all of your ranchers out of business.. You have to go with alternative D in this case. It needs to be site specific and the rancher needs to work with the BLM range manager to make sure that things grow back. | Management Action 4111 proposes four alternatives regarding treatment area management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9354-4 | 4211 All alternatives are rephering to "Emphasis would be placed on non-lethal methods of control techniques and methods would be discussed at the annual management meeting between the BLM and the APHIS-WS" I believe if the rancher can not kill a predator on site when he see's it attacking his stock, he will suffer too many losses before he can get to the Game and fish or the BLM. We need to be able to protect our stock. | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9354-5 | 4420 Alternative B livestock grazing in partutition habititats. The restrictions is going to be hard to enforce with State, and Private ground as well as Forest permits.. This will cut back all the use for camping, grazing and everything. It will cut back grazing time from May 1st to July 1st so this is going to impact the ranchers as well as the people wanting to camp and get out. | Management Action 4220 proposes four alternatives regarding parturition habitat management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9458-1 | The total sheep and Lamb Inventory in Wyoming in 1932 was 3,972,000 and it remained fairly constant through 1942 when the Inventory was 3, 934,000. In the 2023 census the sheep and lamb inventory was 335,000. There are several factors responsible for this precipitous decline but a major cause is the coyotes and other predators. Now the Preferred Alternative calls for severe restrictions on predator control as outlined below: * Designate, in coordination with APHIS-WS, the entire planning area as a "restricted control area" for animal control. Animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives. Emphasize non-lethal methods. * Allow animal damage control on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns. How will the two above items in the Preferred Alternative help the existing sheep industry? | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9721-7 | The statement requiring photo point monitoring for all channel crossings and all surface disturbances greater than½ acre limits the use of best available technology or most appropriate monitoring methods to track and monitor rangelands. Monitoring programs are to be developed to accurately capture and record trends in relation to desired goals and objectives. Photo point monitoring is a good and appropriate method for monitoring some attributes of rangelands but, should not be considered the only method due to development of future monitoring protocols or management objectives. You should restate this requirement to state the BLM encourages the utilization of photo point monitoring, but other methods may be considered. | Proposed management actions for all four alternatives considered for the use of photo point monitoring on channel crossings can be found in management action 1109. Impacts from all four alternatives can be found in Chapter 4. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9759-1 | Prohibiting putting out salt for livestock will harm wildlife wh also use the salt. Reducing the grazing would also cause a reduction in water provided by wells and structures on private lands if the adjacent public land cannot be grazed. Wildlife use private water in order to live on federal land. | As described in Management Action 6411, the use of Salt and Mineral supplements would be allowed under all alternatives. As described in Management Action 6416, range improvements projects (including water wells) would still be allowed within the resource area. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9768-1 | When it is necessary to permanently retire grazing allotments through RMP decisions, it may be possible to compensate the affected ranchers for the loss of these grazing privileges through establishment of mitigation fees from BLM allowing habitat destruction for mining, fossil fuel, and other intensive developments. I believe that retiring degraded allotments, and buying out the affected grazing permits, is an appropriate and effective mitigation measure to offset habitat losses from other approved land uses. This mitigation approach would be a normal requirement during the NEPA compliance process and consistent with relevant federal laws and policies. | The range of alternatives for management action 6402 provides guidance on how and when livestock grazing use would be adjusted. Impacts from all four alternatives under this management action are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9768-2 | I think that BLM grazing reforms are needed, especially to stop grazing where it fails to meet standards and has degraded rangeland resources. This current RMP revision process provides the key opportunity to identify degraded rangelands and to designate those allotments as no longer available for future grazing. | The range of alternatives for management action 6402 provides guidance on how and when livestock grazing use would be adjusted. Impacts from all four alternatives under this management action are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing | #9774-1 | In the RMP/DEIS, some baseline data exists regarding grazing. However, the information cited in Appendix G-Land Health Standards fails to cite when this data was collected. Additionally, this data falls short of providing specific information about the baseline conditions. These baseline conditions must be descriptive and not simply categorized as "met." We urge the BLM to articulate the minimum forage conditions in high plains. | The information provided in Appendix G of the EIS is appropriate for a planning level document. |

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| Management (6400-6417) | | | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9774-2 | Data provided by PEER contradicts Wyoming LHS compared to the RMP/DEIS. In the RMP/DEIS, many grazing allotments claim to meet the LHS. The BLM should provide all available information regarding current grazing practices and land conditions. Based on outside research and from the RMP/DEIS, it is unclear what the current conditions of the land are in 2023 since this plan has taken over a decade to complete. | The information provided in Appendix G of the EIS is appropriate for a planning level document. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9774-5 | We urge the BLM to continue with this alternative and to consider being stricter in their use of grazing to reduce GHG emissions further. To reduce GHG emissions, we recommend that the BLM limit AUMs. GHG emissions "from enteric fermentation and manure deposition on public lands were…2.1 million t CO2e for Wyoming." The SCC for this statistic using the more conservative IWG figures versus the EPA's less conservative figures would be 107.1 million and 252 million dollars, respectively. According to the US Geological Survey (USGS) and US Department of the Interior (DOI), "[Methane] (CH4), are…highest for Federal lands in Wyoming [at] 28 percent." | Impacts from livestock grazing on greenhouse gas emissions are provided in Section 4.3 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9774-6 | Additionally, we know creative solutions exist that help to reduce methane emissions from cattle. In Australia, scientific studies published in the last couple of years have shown that "red seaweed (Asparagopsis taxiformis) reduces enteric methane by over 80 percent." By including red seaweed in cow feed, cows produce less methane. From a CBA standpoint, the cost of seaweed proves to be more cost-effective for the government compared to the harm caused by methane emissions. We recommend that the BLM mandate ranchers to include red seaweed or other feed additives in their cow feed as a way to reduce methane emissions on cattle grazing on public lands. One way to mandate seaweed or other feed additives proven to lower methane emissions in cow feed would be for the federal government to supply the seaweed as a subsidy. | Requiring livestock operators to provide specific types of food for their livestock is beyond the scope of this planning level document. See Section 1.4 of the EIS for the scope of this planning effort. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-3 | Through its grazing prescriptions and overlaying constraints, the DEIS fails to provide for sustainable levels of livestock grazing under each of the management scenarios or explain how the alternatives would impact the production of both food and fiber in the region. Sustainable levels of livestock grazing encompass more than simply the number of AUMs - it's also the management restrictions and/or flexibility that allow for effective and efficient management of the livestock and their grazing utilization. | Socioeconomic impacts of the various alternatives on livestock operations are provided in Section 4.22 of the EIS. Impacts to livestock operations on public land within the Resource Area are provided in Section 4.16 of the EIS. Management Action 6400 would "Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress towards meeting the Wyoming Land Health Standards." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-4 | Worse, the DEIS discounts the impacts on grazing allocations. For example, Table 1 provides a summary of grazing allocations as follows, which is the number of acres where livestock grazing would be allowed: Table 1. Comparison of Land Use Restrictions and Allocations Livestock Grazing Allocations (Bureau of Land Management Surface Lands) Alternative A: 3,591,404 Available / 970 Unavailable Alternative B: 3,583,798 Available / 8,576 Unavailable Alternative C: 3,592,374 Available / 0 Unavailable Alternative D: 3,589,859 Available / 2,515 Unavailable But that's not the significant measure of the impact of grazing allocations. Pages 2-119 and 2-120 indicate there will be substantial differences. Under Alternative A, authorized grazing use would not exceed the recognized permitted active AUMs (318,647 AUMs.) Under Alternative B, "the total authorized livestock use for a grazing season within the RSFO would be the active use AUMs sustained on an allotment-by-allotment basis for livestock grazing." Alternative C would have the BLM "reduce total authorized use to the highest level of billed use over the last 10 years (2009-2018). A total of 160,387 active AUMs will be allocated for livestock use." Alternative D would "authorize livestock grazing at current active use AUMs within all existing grazing allotments. Total active use AUMs currently administered by the RSFO are 304,261." | Section 4.16 of the EIS has been updated as appropriate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-5 | Thus, Alternatives A &; D would maintain authorized grazing use at current levels, while Alternative C would cut authorized use by 50%. But these pages in the DEIS do not specify exactly what the authorized use level would be under Alternative B, a violation of NEPA. The BLM must define the specific level of authorized use for this alternative. Page 4-234 mentions that total authorized AUMs would be reduced 6,202 AUMs under Alternative B, and page 4-233 assumes that authorized use would be 297,066 AUMs, but this number must be set out in the management prescription for the alternative, not just in an analysis of consequences. | MA #6404 provides a range of alternatives. Impacts from each of the alternatives are presented in Chapter 4. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-6 | The BLM needs to explain exactly what it means by the entirety of this phrase found on P 2-120: "the total authorized livestock use for a grazing season within the RSFO would be the active use AUMs sustained on an allotment-by-allotment basis for livestock grazing." This wording is substantially different than the wording used in the other three alternatives. The DEIS socio-economic analysis uses the 10-year average (2006-2015) for estimates of authorized AUMs, but does not mention that during that period, Wyoming was suffering through a historic megadrought in which livestock grazing was reduced by livestock producers in the region. | MA #6404 provides a range of alternatives. Impacts from each of the alternatives are presented in Chapter 4. |
| 829 - Land Resources–Livestock Grazing | #9792-9 | In March 2022, the United Nations, of which the United States is one of five permanent members, unanimously passed a resolution declaring 2026 the International Year of Rangelands &; Pastoralists. In part, the resolution recognizes that "pastoralism is a dynamic and transformative livelihood linked to the diverse ecosystems, cultures, identities, traditional knowledge and historical experience of coexisting with nature," while "Reaffirming that healthy rangelands are vital for contributing to economic growth, resilient livelihoods and the sustainable development of | Section 4.10 of the EIS describes how livestock grazing can reduce hazardous fuel loads which reduces wildfire occurrence. Section 4.22 of the EIS describes the socioeconomic impacts from the various alternatives, including impacts to the livestock/agricultural industries. |

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| Management (6400-6417) | | pastoralism." Yet the DEIS does not discuss the positive benefits to people, land, and ecosystem services provided by pastoralism and transhumance. It does not mention how these practices are an important component of biodiversity and climate solutions, or how they are valued cultural traditions. It doesn't mention how livestock grazing reduces wildfires, or how grazing the RSFO allows the production of both high-quality food and fiber in an arid rangeland that is otherwise unsuitable for food production. Since the DEIS doesn't discuss these topics - all at the core of the BLM's mission - the record prepared by the BLM doesn't include scientific sources for any of these topics. The DEIS does not include provisions for the land to become as productive as feasible for livestock grazing. Instead, the BLM's preference is for production increases to be allocated to wild animals, not livestock. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-10 | The DEIS focuses on speculative negative impacts from livestock grazing while imposing further restrictions on livestock grazing management that will make such use economically unfeasible. | Management Action 6400 would "Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress towards meeting the Wyoming Land Health Standards." Impacts to various resource values from livestock grazing are provided throughout Chapter 4 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-11 | The DEIS is unbalanced in its treatment of livestock grazing management. It fails to take note of the vital importance of private land located along waterways interspersed throughout the RSFO and how ranchers manage these lands as large units rather than on a parcel-by-parcel basis, or the impact of the BLM's management regime to these private lands. | Section 1.4 of the EIS explains "Lands covered in the RMP will consist of public land and split estate lands managed that the BLM manages. No decisions will be made relative to non-BLM administered lands." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-13 | We are especially concerned about the lack of comprehensive and fair treatment of the impacts to livestock grazing. We request that the EIS be revised to incorporate the assessment methodology and practices as described by: Brymer, Amanda L. Bentley, et al. "Economic and social impact assessment of ranching on public lands: A guide to concepts, methods, and applications." Journal of Rangeland Applications 4 (2018). {See Attachment A to this letter.} As noted in Brymer, et al, "A problem with the average AUM scenario is that federal grazing is not typically used in isolation but rather as part of an individual ranch's overall grazing operation. If a ranch is seasonally dependent on federal grazing, as is the case for many western ranches in northern climates, a reduction in federal AUMs can create forage imbalances that produce greater reductions in grazing capacities than just the change in federal AUMs. This suggests that a production scenario based on the changes in the overall ranch production results from a change in federal grazing policy and would be an appropriate scenario to consider in the economic impact analysis." Bremer, et al, also point to the need to provide an overview of resource amenities, the need to account for the social impacts of projects and policies to rural communities, and understanding the social context, of policy shifts in federal land management decisions. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-15 | Alternative B includes a reduction of 6,202 AUMs. That may not sound like a lot, but it is. An AUM is a month's use and occupancy of range by one cow, bull, steer, heifer, horse, burro, mule, five sheep or five goats over the age of six months. So Alternative B's reduction equals the loss of four months of grazing for 1,500 cows with calves, or 3 months of grazing for 2,067 cows with calves, or six months of grazing for 5,000 ewes with their lambs (5 bands of sheep). It's a huge loss. | A definition of Animal Unit Month is provided in the Glossary of the EIS. Impacts to livestock associated with management actions in Alternative B are analyzed in Section 4.16.3 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-16 | Page 2-120, Alternative B, proposes: "Establish allotment stocking rates which result in forage utilization levels in areas preferred by livestock (generally a light 21% to 40% utilization level) that provide for wildlife cover and utilization." Explain the methods and reasoning that led BLM to propose this management prescription and disclose how this grazing scheme will result in less AUMs available for permittees. The plan prescribes "light grazing" which it describes as "livestock grazing that consumes no more than about 30% of the current year's growth of forage plants. Light refers to the effect on the landscape, which is measured through utilization monitoring. You may reduce the number of animals by 30% and still not achieve 'light grazing,' if those animals that remain consume more than 30% of the current year's forage growth." What will the impact of this change mean to livestock production in the RSFO, and to the sustained yield goal enacted by Congress? | A range of alternatives was considered for Management Action 6405. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-17 | While Alternative B prescribes "light grazing" which may not be achieved even with a 30% reduction in the number of animals, the DEIS also proposes "if a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, the BLM will implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease up to three consecutive years (60%) in active AUMs until land health standards are met. This is a completely arbitrary restriction without any cited scientific support. It seems created to punish the permittee rather than proscribe a treatment to reach land health goals. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing | #9792-18 | Grazing management with the RMP should be guided by meeting Wyoming Land Health Standards and grazing systems should be designed and implemented based on the Wyoming Guidelines for Livestock Grazing Management rather than the "light grazing" proposed in the DEIS. | Management Action 6400 would "Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress towards meeting the Wyoming Land Health Standards." |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-21 | The BLM proposes that its livestock grazing management actions would restrict operators by providing for "decreased flexibility in managing livestock" and "additional management complexity." The plan includes a range of restrictive measures for range improvements, water developments, predator control, and salt and mineral placement, as well as changes and season or duration of use and mandatory lower utilization rates. Any changes that result in improved vegetative production will be allocated to wildlife or other resource values "before considering it for livestock," across the 1.3 million acres set aside under special designations. | Impacts to livestock operations associated from these management actions are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-24 | it failed to mention that livestock grazing management in the RSFO is primarily through seasonal migration of livestock herds | Current management of livestock grazing on BLM managed lands within the planning area is described in Section 3.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-25 | In addition, the DEIS Appendix G (reporting on compliance with Land Health Standards for individual grazing allotments) is deficient because it includes outdated information and does not include the most recent assessment data for those allotments. | Appendix G has been updated. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9792-26 | Page 2-122 shows that only Alternatives C and D (of the four alternatives) allow for livestock trailing. Alternatives C and D would authorize livestock trailing, "on a case-by-case basis, based on appropriate, site-specific NEPA compliance." The DEIS should note that livestock trailing is eligible for a categorical exemption. The BLM should not provide for additional environmental analysis for continued use of historic trailing, and the final decision on this RMP should include provisions for authorizing livestock trailing. | Livestock trailing is specifically provided for in Alternatives C & D of the EIS. While livestock trailing is not prohibited in Alternatives A & B, it is also not specifically provided for. The opportunity to authorize livestock trailing by utilizing a categorical exclusion in accordance with FLPMA Section 402(h)(2) would be provided for under all four alternatives in Management Action 6412. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #9794-4 | Bighorn Sheep Page 3-8 states, "There currently are no bighorn sheep herd management areas in the planning area due to conflicts with domestic sheep grazing allotments (primarily disease transmission from domestic to wild sheep)." This statement is factually incorrect and prejudicial. Change it to: "The RSFO is outside of Wyoming Bighorn Sheep Management Areas as designated by Wyoming Statute § 11-19-604." | Section 3.7.1 of the EIS has been reviewed and updated as necessary. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #10468-3 | Further, due to setback restrictions, water resource management, riparian area development, sediment concerns, etc., the potential AUMs even on the lands left for grazing would be so significantly decreased and regulated as to eradicate functional use by the ranchers and farmers. | Impacts to livestock operations associated from these management actions are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #10494-1 | Across all areas of the Rock Springs Field Office RMP continue all currently permitted livestock grazing and authorized annual use consistent with WY Land Health Standards. | Management Action 6400 would "Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress towards meeting the Wyoming Land Health Standards." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #10494-2 | Place no restrictions on current authorities to authorize new range improvements, maintain existing improvements, and conduct predator control activities to protect livestock. | Management Action 6416 provides direction for managing the construction of Range Improvements. Management Action 4211 discusses predator control. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #12645-1 | Ranchers are the ones who care take the land and should be allowed to manage their permits with as much free rein as possible. There is no benefit in over grazing for them and therefore they take range conditions seriously evaluate their use with practicality. | Management of livestock grazing within the Resource Area are provided in Management Actions 6400-6417. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13064-3 | The restrictions imposed on animal control and noxious weeds control would significantly affect the agricultural industry, as many ranchers rely on animal damage management that occurs on public lands to protect livestock located on both private and public land, and many farmers rely on controlling noxious weeds to protect their crops. | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. Management Actions 4200-4213 discuss the management of invasive species and pests. Section 1.4 of the EIS explains that none of the decisions in this RMP Revision would apply to non-BLM administered lands. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13064-5 | Alternative B would also prohibit livestock grazing in wetland and riparian areas that are not meeting proper functioning condition.29 Further, Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing."30 This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing."31 There is no evidence in the draft Rock Springs RMP that supports an increase of three growing seasons for resting treated areas from livestock grazing. This could significantly impact the allotment areas ranchers may graze their livestock within the Rock Springs planning area. | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to livestock grazing from this management action are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13078-2 | Management #4111. Alternative B's proposal of resting areas affected by fires from livestock grazing for five years is a bit excessive don't you think? I would prefer Alternative C, as two years is more than sufficient for vegetation rehabilitation. Option C also allows greater flexibility with resting periods from "chemical treatments, biological treatments, mechanical methods, and livestock grazing to meet vegetation management objectives" using the BLM's current rangeland health criteria. | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to various resource values are provided throughout Chapter 4 of the EIS, for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13141-1 | For livestock grazing "the total authorized livestock use for a grazing season within the Rock Springs Field Office would be the active use AUMs sustained on an allotment-by-allotment basis for livestock grazing, providing the Wyoming Health Standards are met." "If a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, [Alternative B] would implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit / lease up to three consecutive years (60%) in active AUMs until land health standards are met." As producers we are by far the best stewards of the land. Grazing improves the health of the land and has been proven to improve habitat, including sage grouse habitat. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13153-1 | Not only does "Alternative B" constitute the most restrictive of the agency's possible alternatives– your agency admits in its Environmental Impact Statement that this alternative creates the largest socioeconomic impact due to reduced mineral development on the 3.6 million acres subject to your control. Under the Multiple Use-Sustained Yield Act of 1960, your agency is required to manage federal lands in accordance with the principles of multiple use and sustained yield. This means that all possible uses and benefits of the lands be treated equally by your agency when promulgating land use plans. Clearly, you and your agency have ignored the deeply enshrined principles of multiple use and sustained yield. "Alternative B" removes over 7,000 animal unit months of grazing, removes over 60,000 acres from any and all use to "protect wilderness characteristics," and "de-emphasizes recreation" in favor of "conservation of resource values with constraints on resource use." Your preferred plan withdraws millions of acres from mineral extraction, leasing, exploration, and development. Your plan will obliterate the tax revenue derived from mineral, agricultural, recreation and tourism industries in southwest Wyoming | Impacts to livestock grazing from the reduction in AUMs is provided in Sections 4.16 and 4.22 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13210-4 | 4. Across all areas of the Rock Springs Field Office, continue all currently permitted livestock grazing and authorized annual use consistent with Wyoming Land Health Standards | Management Action 6400 would "Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress towards meeting the Wyoming Land Health Standards." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13210-5 | 5. Place no restrictions on current authorities to authorize new range improvements, maintain existing improvements, and conduct predator control activities to protect livestock | Management Action 6416 provides direction for managing the construction of Range Improvements. Management Action 4211 discusses predator control. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13210-68 | 6404 Alternative D Authorize livestock grazing at current active use AUM levels within all existing grazing allotments. Total active use AUMs currently administered by the RSFO are 304,261 (for an explanation of the difference between active use AUMs in Alternative A and Alternative D see Section 3.16). There are also two allotments that are partially within the RSFO that have grazing use administered by another BLM office. These include the Crooked Wash (2,292 active use AUMs currently available within the RSFO) and Horseshoe Wash (607 active use AUMs currently available within the RSFO) allotments. Adjust active use AUMs (increase or decrease) when site-specific monitoring/ assessment data, the results of a land health evaluation, or a site-specific NEPA analysis demonstrates that an adjustment is appropriate to facilitate proper grazing management to provide for meeting or making significant progress towards meeting the Wyoming Land Health Standards and to meet the | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |

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| | | goals and objectives of the RMP. This supports agreements in principle # 4 and # 5 by continuing current levels of livestock grazing while providing that any adjustments to actual use be based in site specific analysis. The "current active use levels" language in the management action best represents public land health standards. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13210-69 | 6411 Alternative A Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by Special Status plant species or other sensitive areas. Alterative A is preferred because it supports agreements in principle # 4 and # 5. The task force is satisfied with the 500-foot standard and feels a ¼ mile buffer is excessive and not conducive to resource and livestock management. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13210-70 | 6412 Alternative D Authorize livestock trailing, on a case-by- case basis, based on appropriate, site-specific NEPA compliance. Alternative D is preferred because it represents the status quo and enables livestock trailing. | Livestock trailing is specifically provided for in Alternatives C & D of the EIS. While livestock trailing is not prohibited in Alternatives A & B. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13210-71 | 6416 Alternative B Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ ground cover. New range improvements may be implemented on grazing allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy. Alternative B is preferred because it supports appropriate range improvements across all allotments in accordance with agreements in principle # 4 and # 5 by enhancing the chances of grazing to meet quality objectives. | Management Action 6416 provides direction for managing the construction of Range Improvements. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13219-1 | Alternative B also limits "control of noxious weeds and other invasive species to mechanical and biological methods." The restrictions imposed on animal control and noxious weeds control would significantly affect the agricultural industry, as many ranchers rely on animal damage management that occurs on public lands to protect livestock located on both private and public land, and many farmers rely on controlling noxious weeds to protect their crops. | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Management Action 4207 proposes four alternatives regarding management of invasive species within the Resource Area. Impacts to livestock grazing from these management actions are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13219-2 | Further, Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing." This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing." There is no evidence in the draft Rock Springs RMP that supports an increase of three growing seasons for resting treated areas from livestock grazing. This could significantly impact the allotment areas ranchers may graze their livestock within the Rock Springs planning area. | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to livestock grazing from this management action are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13260-1 | In addition, there are pictures taken from highway 191 north on the east and west side of the highway. There is an obvious difference in the range conditions between these two areas which are only separated by the highway ROW. Both areas have cattle grazing allotments. The difference is the west side has an overabundance of wild horses which damage the range. Therefore, a comprehensive evaluation and management plan cannot be established without considering the damage caused by feral horses. | The analysis in Section 4.6 of the EIS has been updated as necessary. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13287-20 | The proposed alternatives do little to change livestock grazing. Alternative B, for example, would close a paltry 8,576 acres to livestock grazing (DEIS at 4-178), versus 970 acres closed under present management (DEIS at 4-176). It is our understanding that the acres closed under Alternative B are mostly a presently-ungrazed, vacant allotment in the Red Creek area, an area with friable soils. The acreage of lands meeting Land Health standards under each alternative needs to be estimated and disclosed; at present, the DEIS merely states that livestock grazing will be managed toward Land Health standards, a strategy that clearly is not working at present. | Information regarding Land Health Standards for Grazing Allotments within the Resource Area are provided in Appendix G of the EIS. The level of information provided in that section is appropriate for a planning level document. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13287-21 | Item 6403 (DEIS at 2-119) should be changed to read "Limit range and vegetation improvement projects to cases where they are necessary to restore Land Health or support native species biodiversity. Remove unnecessary fences and other range structures." Alternative B direction (DEIS at 2-123) is a move in this direction, but it needs to be clear that ecosystem health and biodiversity are the sole justification for range improvements, and the large body of science outlining the problems posed by range improvements cannot be ignored. The Project Design Features (Appendix A-1) seem to suggest the removal of unnecessary fences, but this should be given a more mandatory approach in the RMP standards themselves. There is no reason to open developed and undeveloped recreation areas to livestock grazing (DEIS at 2-121, Alt. C), as this leads directly to unnecessary user conflicts. We support strengthening restrictions on salt block siting as in Alternative B (DEIS at 2122). | Management Actions 4435, 6416, and 7466 provide proposed management for the construction of Range Improvements. |
| 829 - Land Resources–Livestock Grazing | #13287-22 | 43 CFR § 4180 requires that corrective action be taken before the next grazing season where Land Health Standards are not met and livestock are a causal factor; it is unclear that Alternatives A, C, and D contain direction consistent with 43 CFR § 4180. In addition, livestock grazing should be zeroed out with wild horse Herd Management Areas, pursuant to 43 CFR § 4710.5. | Section 1.4 explains that "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." All management actions comply with all laws, regulations, and policies. This would include 43 CFR 4180. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13287-23 | Various alternatives call for projects to improve the ecological integrity of dunal ponds (DEIS at 2-16). But the most obvious method of correcting ecological problems is to exclude cattle from the active dunes where dunal ponds collect, largely within the Sand Dunes and Buffalo Hump WSAs. | Excluding livestock from the dunal ponds would be an implementation level action that would be beyond the scope of this planning level document. See Section 1.4 of the EIS for the scope of this planning effort. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13287-30 | Herbivory by cattle and sheep on public lands removes forage otherwise available to native herbivores, and therefore leasing public land for livestock grazing necessarily reduces the population of native herbivores (from large hunted species down to small mammals and even insects) substantially. This means that the interests of the recreating public (both hunters and wildlife-watchers) are materially harmed when the federal government chooses to lease public lands for livestock production. A cow that grazes on public land eats as much forage as 2 elk, 6 mule deer, or 10 pronghorn (Ogle and Brazee 2009, Attachment 10). Given that desert elk (the Steamboat Mountain and Petition Herds) and mule deer (the Red Desert to Hoback migration and others) have high public profile and value, the significant loss of population numbers due to density-dependent competition with livestock is a factor that requires detailed analysis in the EIS, but has yet to receive adequate treatment. | The BLM has reviewed the analysis of impacts to wildlife species from livestock grazing in Section 4.7 of the EIS and determined that the existing analysis is adequate for this planning level document. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13287-31 | The Animal Unit Month (AUM) that is the measure of grazing lease forage removal is a moving target in which cattle progressively take more forage on a per-capita basis year after year as range cattle sizes increase. When the AUM was first implemented as a measure of livestock forage removal, the average cow weighed 1,000 pounds at slaughter (Carter 2016, Attachment 11). Today, average slaughterweight is 1,338 lbs. per cow (USDA 2023, Attachment 12). Proportionately larger cattle consume proportionately more forage, yet the agency has yet to address this issue in its range management program. | The definition of an Animal Unit Month (AUM) provided in the Glossary of the EIS is consistent with the definition provided in 43 CFR 4100.5 and 43 CFR 4130.8-1(c). |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13287-32 | Livestock chronically overgraze on most livestock allotments on the Rock Springs Field Office, in substantial measure because permittees are authorized 50-65% forage utilization on each allotment by the terms of their grazing permits. According to range management experts, forage utilization should be limited to a maximum of 25-35% forage removal in arid western rangelands (Galt et al. 2000, Holechek et al. 2020, Attachments 13, 14). Alternative B comes closest to the best available range science, capping utilization at 40% (DEIS at 2-120), but more is needed, particularly in light of the likelihood of forage productivity reductions in light of climate change (Holechek et al. 2020). The RMP should re-set the maximum authorized forage utilization at 25% in allotments or pastures containing sage grouse Priority Habitat Management Areas, and a maximum of 35% in those that do not. | Management Action 6400 would "Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress towards meeting the Wyoming Land Health Standards." Management Action 6401 would also allow for the use of livestock management techniques (including the use of stocking rates and utilization data) in the management of livestock to maintain or enhance land health. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13300-1 | Alternative B would negatively impact Wyoming's agriculture industry especially livestock grazing. Alternative B designates that, "in coordination with [Animal and Plant Health Inspection Service-Wildlife Services], the entire planning area as a 'restricted control area' for animal control." Alternative B further provides that "animal damage management may be planned, but control activities may be limited to certain methods or times of the year to achieve management objectives" and there would be an emphasis on "non-lethal methods." This would significantly expand the area of restricted animal control to the entire Rock Springs planning area. Under Alternative A, restricted animal control is imposed solely in the Jack Morrow Hills area. Alternative B also limits "control of noxious weeds and other invasive species to mechanical and biological methods." The restrictions imposed on animal control and noxious weeds control would significantly affect the agricultural industry, as many ranchers rely on animal damage management that occurs on public lands to protect livestock located on both private and public land, and many farmers rely on controlling noxious weeds to protect their crops. | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Management Action 4207 proposes four alternatives regarding management of invasive species within the Resource Area. Impacts to livestock grazing from these management actions are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13300-2 | Alternative B would also prohibit livestock grazing in wetland and riparian areas that are not meeting proper functioning condition. Further, Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing." This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing." There is no evidence in the draft Rock Springs RMP that supports an increase of three growing seasons for resting treated areas from livestock grazing. | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to livestock grazing from this management action are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13300-3 | "If a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, [Alternative B] would implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit / lease up to three consecutive years (60%) in active AUMs until land health standards are met." This is by far the most restrictive of all the alternatives and would decrease the number of AUMs authorized for livestock grazing. Overall, Alternative B is clearly the most detrimental to Wyoming's agriculture industry. Alternative B would reduce the number of AUMs authorized for livestock grazing, increase operating costs for operators, and alter their management practices far beyond current practice and any of the other alternatives. Alternative B would alter management practices by imposing more restrictive measures for range improvements, water developments, and salt and mineral placements. In addition, livestock operations would incur additional management c | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-7 | * MA # 4420: Sweetwater County Farm Bureau does not prefer any of the Alternatives, but Alternative D seems most favorable to keeping historical AUM grazing rights. Sweetwater County Farm Bureau is opposed to the prohibition of livestock grazing in the big game parturition habitat from May 1 to June 30. (page 2-68). The delayed turnout of cattle from May 1st to July 1st would force producers to keep their cows on hay fields and their private property during peak hay growing season. This places an enormous financial burden on livestock operations due to the extra two months of required feeding. Hay producers would also lose their first cutting of hay. This would change the historical dynamic of the agricultural industry in the area. This blatantly violates the grazing rights by not honoring the agreement with each individual permittee. | Management Action 4220 proposes four alternatives regarding parturition habitat management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-8 | * MA # 4430: Sweetwater County Farm Bureau prefers alternative A. The least adequate is alternative B to "prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds." This is excessive restriction of multiple use. Including "historical" raptor nests is especially ambiguous and sets a dangerous precedent to restrict access of a changed habitat with no current proof of viability. Alternative B is grasping at straws to restrict access on inaccurate (old) data incongruent with the science of present-day raptor sites. | Management Action 4430 proposes four alternatives regarding activities near raptor nests. Impacts to the various resource values are provided throughout Chapter 4 of the EIS, for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-9 | * MA # 6404: Sweetwater County Farm Bureau prefers Alternative A. Sweetwater County Farm Bureau is opposed to the annual 20% reduction of AUMs from the 10-year average of actual billed AUMs for 3 years. (page 2-119) If land and health standards are not being met and grazing has been determined to be the cause. The management action does not state what other actions for additional causal factors will be. Will there be a 20% annual reduction in wild horse numbers for the affected management areas? A 20% reduction in elk numbers? This management action also fails to account for droughts and other factors not relating to the number of AUMs in the area. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-10 | The length of time a salt or mineral supplement is left in one location also effects the land health (page 2-122). | Under all alternatives, Management Action 6411 describes the location where salt and mineral supplements may be placed. None of the alternatives describe a length of time a salt or mineral supplement is allowed to be present on the land. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-11 | Sweetwater County Farm Bureau is opposed to the reduction of AUMS when grazing activity conflicts with industrial activity. (page2-122) This management action is too restrictive and does not promote negotiation and compromise between affected parties. | The language in Management Action 6413 does not include any actions that would prohibit negotiation or compromise between affected parties. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-12 | * MA # 6510: Sweetwater County Farm Bureau prefers Alternative C. Alternative B is the least favorable as "management of the Green River, Sweetwater River, Big Sandy River, and the Little Sandy River with priority given to other resource values" could potentially restrict and/or eliminate the designated AUMs of the area. | The language in Management Action 6510 does not indicate an associated reduction in AUMs for livestock. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-15 | MA # 7438: Sweetwater County Farm Bureau prefers Alternative C. Sweetwater County Farm Bureau is opposed to the prohibition of grazing in Jane's Meadow and Upper Currant Creek Pastures within the Sugarloaf Grazing Allotment. (page 2-182). This management action does not state the reasoning to close this area to grazing. Is it being recommended for closure due to land health standards not being met or is this recommended closure arbitrary? | Management Action 7438 proposes four alternatives regarding livestock grazing within the Currant Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13330-16 | MA # 7443: Sweetwater County Farm Bureau prefers Alternative C. Sweetwater County Farm Bureau is opposed to the prohibition of grazing in the Red Creek Allotment. (page 2-184) This management action does not state the reasoning to close this area to grazing. Is it being recommended for closure due to land health standards not being met or is this recommended closure arbitrary? | Management Action 7443 proposes four alternatives regarding livestock grazing within the Red Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13377-1 | Alternative B would "rest all treated areas a minimum of five growing seasons from livestock grazing" This is a significant increase as currently, "all treated areas would be rested a minimum of two growing seasons from livestock grazing" There is no evidence in the draft Rock Springs RMPthat supports an increase of three growing seasons for resting treated areas from livestock grazing. If there was ample evidence to support this extended resting period, it could potentially be discussed with the permittees and practices found to make this applicable. | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to livestock grazing from this management action are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13446-2 | According to the USDA 2021 ranking statistics, Wyoming ranks nationally as number two for lamb and wool production respectfully and ranks number four overall. For all cattle, Wyoming ranks 23. These alone are strong contributors to the national and international textile and food production pipelines and should not be so easily dismissed.(https://www.nass.usda.gov/Statistics_by_State/Wyoming/Publications/Annual_Statistical_Bulletin/WY-2021-Bulletin.pdf) | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13490-4 | *Reduce or eliminate commercial livestock grazing within wild horse HMAs. The BLM is legally mandated to protect wild horses, while livestock grazing is a discretionary use of the public lands. It is widely known that the Taylor Grazing Act (43 U.S.C. §§ 315-315r) grants the BLM the discretion to issue permits for livestock grazing on public lands, but it also clear: “the issuance of a permit . . . shall not create any right, title, interest, or estate in or to the lands.” More important, the federal Wild and Free-Roaming Horses and Burros Act (43 C.F.R. § 4710.5) compels the BLM to “close appropriate areas of the public lands to grazing” in order “to provide habitat for wild horses” or “to protect wild horses.” | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13513-1 | Livestock grazing needs to be included in the prescriptions to meet vegetative management objectives | Goals BR-09 and BR-10 in Table 2-1 establish goals related to grazing for the management of vegetation communities. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13526-1 | Grazing is presently heavily regulated by the BLM. It does not need further restrictions, since present management already accounts for appropriate numbers, season of use, weed control, response to drought, etc. The BLM should continue to work with APHIS and local animal damage control boards to allow for necessary predator control, which also benefits wildlife species. Mule deer and antelope populations were especially impacted by the brutal winter of 2022-2023. | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Impacts to various resource values are provided for throughout Chapter 4 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13549-1 | One such concern is 6414 page 2-123 that states "prohibit livestock grazing in riparian areas that are not meeting PFC" According to the Riparian Area Management book issued by the NRCS, U.S. Department of Interior, and U.S. Department of Agriculture in the Introduction on page 1 states: 1) "PFC is also an appropriate starting point for determining and prioritizing the type and location of quantitative inventory or monitoring necessary. 2) Also in Appendix E on page 105 states "PFC isn't the sole methodology for assessing the riparian-wetland area". 3) "PFC isn't desired condition. It is a pre-requisite to achieving desired condition. Therefore: to obtain a complete picture of the riparian-wetland area health, including the biological side, one must have information on both physical status, provided through the PFC assessment and biological habitat quality. Neither will provide a complete picture when analyzed in isolation. In most cases, proper functioning condition will be a pre-requisite to achieve and maintaining habitat quality". "PFC isn't designed to be a long-term monitoring tool, but it maybe an appropriate part of a well-designed monitoring program". | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13549-2 | According to this book PFC has an important role but not a solitary role in range monitoring nor determination. In the RMP on 4300 page 2-61 according to proposed alternative B while everyone wants the range to meet PFC and have a desired condition having PFC be the only monitoring data and placing a time-line of 5 or 10 years is not site-specific. Each area has its own issues and needs to be monitored not only with PFC but other site-specific methods of collecting data. The reduction of AUMs based solely on PFC 4300 page 2-61 is not following the monitoring book explained earlier. | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13549-3 | Another area of concern is 6404 page 2-119 two different concerns are brought about with this. First is the Active vs Billed AUMs. Many ranchers are conservatives, this is in their best interest to leave forage for other years. This being said many ranchers pay for ( billed ) AUMs that are not used that year. This helps the range also the Bureau and giving the rancher forage in the future. When ranchers are cut to the Active AUMs they don't have the freedom to help out. This is left completely to the overworked BLM range cons to determine each site specific allotment. Giving the ranchers some movement is in the best interest of the range because they are trying to be there year after year after year. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13549-5 | The second issue with this same section is putting a percentage rate on reduction of AUMs. Again some sites need more time to rest and others need less. To set a specific reduction and time reduction does not work for all areas. This needs to be determined by a management team on a site-by-site basis. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock | #13549-6 | In section 4408 page 2-64 states in proposed Plan B that water developments only if wildlife habitat and resource conditions would be improved. Now wildlife certainly is important the BLM is a multi-use organization and needs to consider all animals. When ranchers put in a new water development this helps out the wildlife in many aspects | Management Action 4408 proposes four alternatives regarding the development of range improvements in important wildlife habitat. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |

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| Grazing Management (6400-6417) | | not only providing them with water but also distributing the animals across the landscape so not to overgraze one area to give more feed for all animals throughout. To say it is good for wildlife is to only look at one part of the whole picture. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13549-7 | In 6413 page 1-122 if industrial activities is making the rangeland management objectives turn out negatively it should be addressed. This can not be determined without a site-specific analysis. | The language in Management Action 6413 would not eliminate the need for site specific analyses in these situations. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13549-8 | The last area I would like to address is 7490-7497 page 2-194. This states that the Pine Springs ACEC would be expanded to 6,480 acres. These extra acres would inhibit water development or maintenance because there is no live water in the area and because of this animal dispersement. Wildlife and livestock would be more congregated around other water resources which would impact range health. | As shown in Map 2-30 of the EIS, the majority of the Pine Springs ACEC is located within the Devil's Playground and Twin Buttes WSAs. See Wilderness Study Areas in Chapter 3 and impacts in Chapter 4. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13585-39 | Finally, the BLM's conclusion that impact to livestock grazing would not change between Alternative A and Alternative Bis false. See DEIS at 4-178, 4-259. Many of the ACEC's have a no surface occupancy "NSO" designation and this will impact permitted livestock owners' ability to drill for water wells within their grazing allotments. See DEIS at Append. V-4 - V-7. In addition, VRM Class II designations, ROW exclusions, and prohibition of surface disturbing activities within an ACEC would impact the ability of permittees to develop range improvements, such as fences, wells, or other water developments. See id. At 2-210 (Mgmt. Action #7556), 4-179. Some of the proposed ACECs also call for closure of grazing allotments and/or prohibition of grazing within certain pastures. See id. At 2-181 (Mgmt. Action #7433), 2-182 (Mgmt. Action #7438), 2- 184 (Mgmt. Action #7443). | The language in Section 4.16 of the EIS has been updated as appropriate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13585-66 | e. Sweetwater County objects to Management Action #6413 under Alternatives B, C, and D. DEIS at 2-122. Alternative B calls for the reduction of areas open to grazing and available AUMS when "industrial activity conflicts with grazing operation and rangeland management objectives." Id. The BLM then lists examples of conflicts including loss of forage, unsuccessful rehabilitation of disturbed areas, invasive species, safety hazards, and improper livestock distribution | The language in Management Action 6413 does not include any actions that would prohibit negotiation or compromise between affected parties. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13585-67 | The County does not support the reduction in grazing when industrial activity is the cause of loss of forage, invasive species, unsuccessful rehabilitation, or others. The permittees should not be the ones to face reductions when their grazing activities were not the cause of any issue. Grazing permittees also have had longstanding relationships with resource developers and have had limited conflicts arising between grazing operations and development. This is due to proper planning and coordination between the developer and permittee, as well as implementation of a proper reclamation plan by the developer. | The language in Management Action 6413 does not include any actions that would prohibit negotiation or compromise between affected parties. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13615-1 | To close grazing areas to livestock grazing at specific times is opposite to much research which shows changing season of use is beneficial to ecosystem improvement. | Impacts associated with the closure of specific areas to livestock grazing under the various alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13668-4 | Management # 7433 Page 2-181 Prohibit livestock grazing in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion (Map 2- 30). I would prefer any alternative other than B, because it would maintain the rangeland health. The stream is at PFC and the sheep help suppress the cheatgrass by grazing in the early summer. So why remove the livestock as they are a tool in helping maintain healthy land conditions? | Management Action 7433 proposes four alternatives regarding livestock grazing within the Sage Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13668-5 | Management # 6414 Page 2-123 Prohibit livestock grazing in riparian areas that are not meeting PFC. This is not feasible, nor is it reasonable. Suggesting you would have to rest, or worse yet, fence whole areas that are watered by that stream would be expensive and more importantly, would conflict with sagegrouse running into the fence. It also states "no grazing". PFC is too vague of a monitoring tool to make decisions. PFC is used as an inventory; not the trend-data tracking tool it could be to help make lasting improvements and decisions. Additionally, an inadequate PFC may be caused by a stream geomorphology or a long-term drying trend as is common, and presently taking place, in this high desert. It's ridiculous and difficult to prove that a cow or a sheep caused a headcut. | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock | #13668-6 | Management #6404 Page 2-119 "The total authorized livestock use for a grazing season within the RSFO would be the active use AUMs sustained on an allotment- by-allotment basis for livestock grazing, providing the Wyoming Land Health Standards are met. If a land health evaluation shows that land health standards are not met and | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |

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| Grazing Management (6400-6417) | | current livestock grazing management is determined to be among the causal factors, implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease up to three consecutive years (60%) in active AUMs until land health standards are met. Adjust reductions if it has been determined that significant progress has been made toward achieving land health standards. A much better option would be Alternative A or parts of Plan D. Rangeland health decisions should be made off of monitoring data - not an across the board rule of thumb. Generally speaking, rangeland health problems are often due to distribution, not stocking rates. For example, being able to create alternative water sources for all species so not just one trail takes the beating. But just for the record, rangeland health standards have been monitored and continue to meet, and more times than not, even exceed requirements and expectations | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13669-1 | In addition, with the drought which has plagued the west in recent years, total cattle population numbers are reduced which in turn has created a demand situation for cattle in the total food supply. Prices for beef have increased dramatically in recent years and with increases in the world population, the demand for protein in beef will increase accordingly further exacerbating the problem of world hunger. | The demand for beef and the associated prices are beyond the scope of this BLM Resource Management Plan. See Section 1.4 for the scope of this planning level document. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13678-1 | We have spent the past decade monitoring the forage in our allotments along with monitoring our riparian areas. We recently completed the range land health assessment on our allotments along the wind river front. The data and results of these monitoring are not being used in this document due to a lack of a signature from the BLM district manager. Why was this not signed and used in the information gathering for the RMP? | Appendix G of the EIS provides information on the current status of Land Health Evaluations within the Resource Area. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13687-1 | I have a planned grazing rotation that changes each year consisting of 5 different pastures. In two of these pastures, we have not one but two National historic Trails that cut through the center of them. If I cannot place salt or mineral within 3 miles either side of those trails, I can no longer place the salt or mineral, which is benefiting not only livestock, but wildlife as well., in those two pastures. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13691-1 | Approximately 10%(2) of breeding cows with a home base in Duchesne County, go to the range within the Rock Springs Field Office (RSFO) management area near Farson, Wyoming. This represents a significant portion of the economy to not only Duchesne County, but also to Sweetwater County Wyoming and other surrounding counties in Wyoming. Needless to say, any reduction in cattle numbers permitted to graze on areas within the jurisdiction of the RSFO of the BLM, may be detrimental, if not catastrophic to the economies of both areas. In addition, with the drought which has plagued the west in recent years, total cattle population numbers are reduced which in turn has created a demand situation for cattle in the total food supply. Prices for beef have increased dramatically in recent years and with increases in the world population, the demand for protein in beef will increase accordingly further exacerbating the problem of world hunger. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13691-3 | Adopting Alternative B may increase forages available to the point that fire risk would be dramatically increased. In this fire sensitive culture in which we live, responsible livestock grazing to protect the environment is a mutually beneficial way to mitigate fire risk. In addition, if Alternative B is selected, control of any wildfire will be hampered due to restrictions in mobilizing fire suppression equipment to the scene. | Section 4.10 of the EIS describes the correlation between livestock grazing and hazardous fuel removal. Section 4.10 also discusses the impacts to fire suppression from various other management actions. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-1 | The current preferred Alternative B suggests an overly burdensome blanket reduction in AUMs by 20% for three years. We support adjusting AUMs based on site-specific monitoring or when a NEPA analysis demonstrates it is appropriate to change. Furthermore, the BLM does not have current Land Health Standards (we address below) in the draft RMP, which could inaccurately result in a permittee's reduction in AUMs in Alternative B's MA. Alternative D allows flexibility for the agency to monitor and alter plans on a site-specific basis and appropriate current analysis. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. Appendix G of the EIS provides information on the current status of Land Health Evaluations within the Resource Area. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-2 | By focusing on desired outcomes, such as improved soil health, increased biodiversity, and enhanced water quality, ranchers can contribute to sustainable land management. The plans provide flexibility in adjusting grazing strategies based on changing conditions, and ranchers can adapt their practices to respond to weather patterns, forage availability, and other ecological factors, allowing for more resilient and adaptive land management. By strategically managing grazing patterns, ranchers can also promote the growth of high-quality forage. This benefits both livestock and wildlife, contributing to improved animal health and productivity. Outcome-based grazing can help conserve water resources. By preventing overgrazing and promoting healthy vegetation cover, ranchers contribute to better water retention in soils and reduced erosion. Outcome-based grazing plans also consider the needs of wildlife species, like greater sage grouse, by maintaining or restoring habitat conditions. This can lead to increased biodiversity, supporting various plant and animal species on the ranching land. Effective grazing management can reduce the need for supplemental feed, as livestock can graze on healthier and more abundant | None of the Management Actions within the EIS would prohibit the use of Outcome Based Grazing management. |

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| | | forage. This can result in cost savings for ranchers. By focusing on ecological outcomes, ranchers and land managers contribute to the long-term sustainability of their operations. Healthy ecosystems are more resilient to external challenges, fostering sustainable agricultural practices. Overall, outcome-based grazing plans provide a holistic and environmentally conscious approach to land management, benefiting both the ranchers and the ecosystems they operate within. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-3 | MA# 4111, Alternative D: "Adapt management of treated areas, using a site-specific analysis of contributing factors, if not meeting or making significant progress toward vegetation objectives." Rationale: Alternative D allows for more adaptive management based on on-the-ground conditions. Alternative B suggests resting all treated areas for a minimum of five growing seasons from livestock grazing. This is too rigid and does not take actual conditions into consideration. Well managed grazing incorporates rest already, deferring grazing altogether causes increased risk of invasive annual grasses and fire. These landscapes need adaptive grazing and plant stimulus. For example, grazing stimulates plants to produce more tillers than ungrazed plants. | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to livestock grazing from this management action are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-4 | MA #4420, Alternative D: "Evaluate and adjust grazing schedules, at the time of permit renewal, if any conflicts with parturition areas exist." Rationale: Alternative D appropriately and reasonably defers grazing when conflicts, if any, occur during big game parturition. Prohibiting all livestock grazing in big game parturition habitat during the birthing season (usually from May 1 through June 30), as directed in alternative B, regardless of conditions on the ground, is a blanket management prescription that does not consider seasonal changes to wildlife parturition or permit users. Alternative B also fails to recognize the prevalence of mixed land ownership, such as the checkerboard, in the RSFO. Animals give birth on all lands, and private lands with cattle operations connect to BLM allotments. Parturition areas, only where conflicts arise with grazing, should require a grazing schedule evaluation. | Management Action 4220 proposes four alternatives regarding parturition habitat management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-5 | MA #4412, Alternative C: "Continue to coordinate and review with APHIS-WS and county pest control, their annual wildlife damage management plan for animal damage control activities on public lands to benefit resource use and wildlife. Identify, on a case-by-case basis, areas where proposed animal damage control activities (all or specific methods) are not compatible with BLM planning and management prescriptions or objectives for other resource activities and users. Request APHIS-WS and county pest control to amend or adjust proposed animal damage control activities accordingly." Rationale: Alternative C provides for wise coordination between BLM and APHIS-WS regarding predator control should be deferred to the annual management meeting. We also recommend that the Wyoming Department of Agriculture be included in these meetings. The preferred alternative B allows animal damage control on BLM land only if it would benefit Special Status Species or is needed for valid safety concerns. | Management Action 4412 proposes four alternatives regarding how BLM will coordinate with APHIS regarding animal damage control activities. Impacts to the various resource values from all of these alternatives are provided throughout Chapter 4 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-10 | MA# 6411, Alternative D: "Prohibit placement of salt and mineral supplements (such as low moisture block supplements) within ¼ mile of the following resource values (excluding prohibition for disturbed areas where stock tanks and reservoirs occur): * Perennial or intermittent water sources * BLM water improvements * Riparian or wetland areas * On each side of the NHTs or other historic roads and trails, unless the project and its associated impacts are not visible from the NHTs * Special Status plant species populations * Avoid placement of salt and mineral blocks within 500 feet of areas that are actively being reclaimed. Rationale: Alternative D uses a sufficient distance for the placement of salt blocks to protect surface waters, riparian areas, Special Status Plants, and National Trails. We also recommend including language in this alternative that allows for salt and mineral supplements to be placed in disturbed areas where stock tanks and reservoirs occur. Oftentimes, permittees move their cattle up the ridge or hillside for seasonal rotations, and place salt blocks near water tanks. These areas are already disturbed due to cattle using the site for water, regardless of their location from the resource values listed above. It is sometimes better to place salt in these already disturbed areas, rather than creating a new disturbance farther away. Overall, alternative B is overly burdensome requiring a ½ mile distance, and it is not supported by current science. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13748-12 | Twenty-one of the seventy-nine allotments (~27%) are currently not meeting Land Leath Standards due to livestock use in the RSFO. However, our members have been informed that their allotments have not been reviewed for Land Health Standards since 2003. In one instance, a member recently requested that a BLM Range Management Specialist visit her allotment to update the assessment. The specialist informed her the allotment was in good condition but that she did not have time to update it. How can it be that the BLM has not updated these allotments in over 20 years yet lists them in the current draft RMP for the public to review to update management directives? Permittees risk a reduction in AUMs in the preferred alternative B because the Land Health Standards are not current. | Appendix G of the EIS provides information on the current status of Land Health Evaluations within the Resource Area. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13769-4 | 3. We urge the BLM to consider the synergistic effects of increasing feral horse populations and decreasing forage production in the area due to climate change. We have observed considerable impacts of wild horse forage consumption. The impacts are significant because unlike migrating wildlife or cattle, feral horses graze the same areas year around. Also, horse digestive physiology forces horses to intake more forage and use it more inefficiently than native ungulates. Horses are clearly not effectively managed and their populations increase each year. Horses also concentrate in certain areas like watering holes and the few riparian areas. We have observed a decrease in both the quantity and diversity of forage in these habitats. For example, the increase in non-palatable | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. Management of invasive species is described in Management Actions 4200-4213 |

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| | | species like Prickly Pear Cactus and Rubber Rabbit Brush in areas of heavy grazing is concerning. While the former can be partially attributed to drought and a changing climate, we are concerned that uncontrolled feral horse populations will result in irreversible change in species richness and net primary productivity. We report numerous 'stud pile' areas that are devoid of any vegetation because of repeated occupancy and trampling by numerous stud horses. A decrease in plant cover results in increased soil erosion and a decrease in forage production. While not documented scientifically, we observe in these areas that the trampling is so severe that it appears as if sub-soil salts are leached to the surface and form alkaline deposits that further reduce plant production and lead to the spread of noxious weeks (e.g. Halogeten (Halogeton glomeratus)). | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-16 | MA#4207, Alt. B: "Limit control of noxious weeds and other invasive plant species to mechanical and biological methods." Comment: The limited approach to address annual grasses, including cheatgrass through chemical applications will dramatically prohibited livestock grazing permittees from achieving Wyoming Land Health Standards for upland or sensitive species. The recent efforts to approve Rejuvra for long-term control of cheatgrass on BLM Rock Springs Field Office lands will not apply to the Rock Springs Field Office under Alternative B. This lack of weed suppression will have a cumulative impact to private, state, and other federal lands. | Management Action 4207 proposes four alternatives regarding management of invasive species within the Resource Area. Impacts to the various resource values are provided throughout Chapter 4 of the EIS, for all four alternatives related to Management Action 4207. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-32 | MA#6404, Alt. B: "The total authorized livestock use...would be the active AUMs. If land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lessee up to three consecutive years (60%) in active AUMs until land health standards are met." Comment There are so many issues and impacts from MA#6404. First, livestock grazing permittees who stock their permits conservatively are now being punished for not utilizing the fully authorized permit. Second, BLM is not correctly following the regulations for Wyoming Land Health Standards. Livestock grazing must be determined to be the significant causal factor, not among the factors as written. All other causal factors including but not limited to wild horses, wildlife, recreation, and industry are incorporated into the determination, yet livestock grazing permittees are the only ones required to modify management. The proposed reductions to AUMs may have no change in resource conditions or meeting or working towards meeting the Standard. Finally, a reduction of up to 60% of a grazing permit would devastate the livestock grazing industry in the project area. Depending on the BLM's ability to reevaluate Wyoming Land Health Standards, the ability to regain the AUMs lost could take years. The permittees cannot assume BLM will prioritize new evaluations in a timely manner for these permits. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. Appendix G of the EIS provides information on the current status of Land Health Evaluations within the Resource Area. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-33 | MA#6405, Alt B. "Establish allotment stocking rates...(generally a light 21% to 40% utilization level) that provide wildlife cover and utilization." Comment: Wyoming Land Health Standards regulations are already in place to evaluate rangeland conditions and determine if livestock grazing utilization levels meet the Standard for Special Status Species and wildlife. The reduction in utilization levels at the Plan level is not appropriate. Utilization levels should be evaluated at the site-specific level based on Standards Determinations and project level NEPA. Additionally, the BLM already adjudicated AUMs for livestock grazing with the additional forage adjudicated to meet the needs for resource benefits, wildlife, and wild horses. | A range of alternatives was considered for Management Action 6405. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-34 | * MA#6406, Alt B: "Adjust livestock and wild horse forage allocations as needed to meet the site potential which supports wildlife habitat requirements." Comment: Adjusting current livestock grazing management may not assist in reaching site potential. Rather soil and vegetative disturbances such as fire, mowing, or tilling followed by native seeding may be required to reach site potential. If wildlife habitat requirements were not being met, this would be identified using Wyoming Land Health Standards Determinations. | Management Action 6406 proposes four alternatives regarding management of forage for wild horses and livestock. Impacts to the various resource values are provided throughout Chapter 4 of the EIS, for all four alternatives related to Management Action 6406. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-35 | MA#6407, Alt. B: "Close all exclosures within the planning area to livestock grazing. Suspend AUMs currently authorized in these exclosures." Comment: The Alternative doesn't provide how many exclosures there are in the project area or provide how many AUMs would be suspended. The Alternative fails to explain why the exclosures are in place, or how each exclosure has the original purpose and need when it was analyzed under NEPA. To change the original intent for an unknown reason followed by suspension of AUMs for livestock is unacceptable. | Detailed information about individual livestock grazing exclosures is beyond the scope of this EIS (see Section 1.4 for the Scope of this document). A summary of AUMs by alternative is provided in Management Action 6404 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-36 | MA#6411, Alt B: "Prohibit placement of salt and mineral supplements...Within 1/2 mile of natural perennial or ephemeral water sources..." Comment: The number of ephemeral channels across the project area is likely to be significant and potentially could limit many livestock grazing permittees from complying with the distance required under the Alternative while still meeting their livestock needs for salt and mineral. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing | #13784-37 | * MA#6414, Alt B: "Prohibit livestock grazing in riparian areas that are not meeting PFC." Comment: PFC is not a quantifiable tool where data is used to conclude on a significant causal factor. PFC should inform the Wyoming Land Health Standards for Riparian, with a Determination made to causal and significant causal factors. As stated, | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |

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| Management (6400-6417) | | Alternative B assumes or singles out livestock grazing as the significant causal factor for all streams not meeting PFC. This misapplies the intent of PFC. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-40 | MA#7423, Alt B: "Modify livestock grazing objectives and systems to manage for plant condition and composition most ecologically beneficial to identified wildlife species..." Comment: This Alternative conflicts with existing regulations for Wyoming Land Health Standards. BLM should only modify grazing management after a Standards Determination identifies livestock grazing as the significant causal factor. The RMP can not override BLM's existing regulations. | Management Action 7423 proposes four alternatives regarding livestock management objectives in the Greater Red Creek ACEC. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-41 | MA#7433, Alt. B: "Prohibit livestock grazing in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion (Map2-30)." Comment: The Alternative needs to identify the number of AUMs lost, as well as the number of acres in the grazing allotment the BLM would close. Additionally, there's no context as to what the intent behind removing livestock grazing would be in relation to benefiting the Sage Creek ACEC. | Management Action 7433 proposes four alternatives regarding livestock grazing within the Sage Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. The number of AUMs permitted under each alternative is provided in Management Action 6404. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-42 | MA#7438, Alt B: "Prohibit livestock grazing in the Jane's Meadow ad Upper Current Creek Pastures within Sugarloaf Grazing Allotment." Comment: The Alternative needs to identify the number ofAUMs lost, as well as the number of acres in the grazing allotment the BLM would close. Additionally, there's no context as to what the intent behind removing livestock grazing would be in relation to benefiting the Current Creek ACEC. | Management Action 7438 proposes four alternatives regarding livestock grazing within the Currant Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. The number of AUMs associated with each alternative are provided in Management Action 6404. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-43 | MA#7532, Alt. B: "Designate the ACEC an exclusion areas for: 1) surface disturbing activities that could adversely affect the resource values in the area..." Comment: Where livestock grazing overlaps the ACEC, this Alternative would prohibit livestock grazing permittees from implementing new range improvement projects such as water developments. The broad interpretation of surface disturbing activities is likely to cause significant negative impacts to the livestock grazing industry. | As shown in Map 2-30 of the EIS and described in Management Action 7530, the White Mountain Petroglyphs ACEC is 20 acres, so Management Action 7532 would only apply within those 20 acres. Impacts to livestock operations from restrictions on the development of range improvements in ACECs are discussed in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-46 | "Prohibiting use of fire chemicals, salt or mineral supplements, and range improvements within 1/4 mile of special status plant species could indirectly further protect soil quality in these areas." (p. 4-24) Comment: The prohibition of range improvements includes fencing. Fencing is often used to protect vegetation, including special status plant species. Yet, Alternative B, will not allow fencing to protect the plants within 1/4 mile of the plants. Also, how is soil "quality" protected? | Management Action 4612 allows for the construction of range improvement projects if they are beneficial to the Special Status Species. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-47 | "Livestock grazing management actions would be similar to Alternative A, except where areas open to grazing under Alternative A would be prohibited or closed to livestock grazing (exclosures and recreation areas). In these areas, reduced grazing pressure on vegetation would provide greater protection to soils compared to Alternative A." (p. 4-24) Comment: BLM needs to include the number of acres prohibited or closed to grazing to inform the public and most importantly the livestock grazing permittees of the actual impact from current management under Alternative A. | Section 4.16 of the EIS describes the number of acres closed to livestock grazing under all management actions for each alternative. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-48 | "Livestock grazing and range improvements could involve localized surface disturbance from activities such as water source development and construction of fences. These activities could result in localized vegetation removal and reduction of soil surface..." (p. 4-33) Comment: BLM is considering livestock grazing as a surface disturbance under Alternative A, which WDA can not support and does not meet the definition of surface disturbing activities "Management that prohibits or restricts recreation-related surface disturbing activities such as camping, cutting of trees and firewood for camping, and construction of recreation site facilities..." (p. 4-33) Comment: While WDA doesn't oversee recreation, we reiterate our concern of BLM's misapplication and analysis of surface disturbing activities. Camping and cutting of firewood do not disturb soils. | The language in Section 4.5.2 has been updated as necessary. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-49 | 4.5.3 Water Resources, Alternative B: "Vegetation treatment actions would have similar impacts as those discussed in Alternative A, but longer resting times for treated areas would likely provide greater protections to water resources in these areas as vegetation and soil would have a longer timeframe to establish and stabilize..." (p. 4-35) Comment: The analysis is misleading by assuming the vegetation treatments are near water or on steep slopes where soil runoff is likely to occur. Longer rest times under this analysis are assumed for livestock grazing, but not indicated specifically. Rest from livestock will not guarantee the vegetation objectives are met. | The BLM has reviewed Section 4.5.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-50 | "However, surface disturbing activities such as vegetation treatments, removing and building fences, and water developments would result in short-term vegetation loss..." (p. 4-35) Comment: Aerial spraying for cheatgrass is an example of vegetation treatment, yet has no ability to disturb soils. BLM has used surface disturbing activity across any activity, many of which are not actually meeting the definition or intent of what surface disturbing activities are. | The BLM has reviewed Section 4.5.3 of the EIS and determined that the existing analysis is adequate. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-51 | "Impacts to water resources from livestock grazing management would be similar to Alternative A. Under Alternative B some areas would be prohibited or closed to livestock grazing. In these areas, reduced grazing pressure on vegetation would provide greater protections to water resources when compared to Alternative A." (p. 4-36) Comment: The analysis fails to include the necessary information such as acres closed or prohibited from livestock grazing in Alternative B to compare with Alternative A. "Some areas" doesn't give the livestock grazing permittees the information needed to fully understand the impacts to their permits. | Section 4.16 of the EIS describes the number of acres closed to livestock grazing under all management actions for each alternative. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-53 | 4.7.3 Wildlife and Fisheries, Alternative B: "Resting lands from livestock grazing a minimum of five seasons after treatments would allow treated areas to revegetate, soils to stabilize and vegetation to mature to the point of withstanding livestock grazing pressure. Rested areas could provide wildlife with new vegetation for cover and forage without competition with livestock during the rest period." (p. 4-69) Comment: The statement and analysis are biased. If removal of livestock grazing for a period of five growing seasons is beneficial, why does wildlife grazing on the same treated areas not compromise the treatment's ability to mature? | The BLM has reviewed Section 4.7.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-54 | "Removal of fences reduces threats of injury or death from collisions or entanglement with fences, enhances migration corridors, and could allow access to additional forage and cover." Comment: There wasn't a specific management action pertaining to the removal of fences under Alternative B, Chapter 2.Fences are not a limiting factor with wildlife and forage. Remove the statement. | This language in Section 4.7.3 of the EIS has been updated as appropriate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-55 | 4.16.2 Livestock Grazing Management, Alternative A: "Large concentrations of these big game animals occur within portions of the planning areas (Map 3-3) which could require some livestock operators to alter grazing management practices to comply with the Wyoming Land Heath Standards." (p. 4-175) Comment: When the BLM evaluates Wyoming Land Health Standards and a particular Standard is not met during the Determination, current livestock grazing is analyzed to determine if it is a significant causal factor. According to the statement above, if big game concentrations were occurring and contributed to the Standard not being met, and livestock grazing was not the significant causal factor, changes in livestock grazing management should not occur. BLM must follow the regulations for Wyoming Land Health Standards and not misapply them to remove or change livestock grazing management. | The BLM has reviewed Section 4.16.2 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-56 | "Under Alternative A, 3.592,404 acres would be available for livestock grazing use and 970 acres would be managed as unavailable for grazing." (p. 4-176) Comment: The BLM must identify the Palmer Draw area as the areas where the 970 acres are unavailable for livestock grazing. Additionally, WDA believes the BLM should provide the reasoning for making this area unavailable. | The BLM has reviewed Section 4.16.2 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-57 | "Management of these recreation sites would continue to exclude forage from livestock use because these areas would be fenced. Because of the relatively small size of these sites, the impacts to livestock grazing would be minor." (p. 4-176) Comment: This section does not provide the number of acres livestock grazing is fenced out from utilizing forage. Additionally, the section does not tie back to the 970 acres mentioned earlier, leaving WDA unsure if these acres are above or in addition to the previous statement. Finally, "would be minor" assumes this will occur in the future, but Alternative A is the current management and would provide the existing impacts based on the management already occurring from when the plan was last revised. | The BLM has reviewed Section 4.16.2 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-58 | "Designated OHV areas that are closed to livestock grazing would result in a small loss of forage." (p. 4-177) Comment: Alternative A neglects to identify how many acres are closed to livestock grazing. Are the 970 acres unavailable to livestock grazing different than what this statement indicates? Closure and unavailability to livestock grazing are two different management actions. | The BLM has reviewed Section 4.16.2 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-59 | 4.16.3 Livestock Grazing Management, Alternative B: "Impacts resulting from management of the air quality, fire, cultural resources, recreation, vegetation and hazardous materials management would be the same as the Alternative A." (p.4-177) Comment: This statement is false. Alternative B requires numerous management changes and requirements to manage or reduce livestock grazing, including reduced annual utilization levels, closure to exclosures, and mandatory rest for five growing seasons for vegetative treatment areas. | The BLM has reviewed Section 4.16.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-61 | "Animal damage control activities under this alternative could directly benefit livestock operations by removing predators know to have killed livestock, (p. 4-178) Comment: The analysis for Alternative B is flawed. Alternative B removes lethal control for predators and has restricted control areas found on pg. 2-60. There is no benefit to livestock grazing under Alternative B, especially regarding predator control. In fact, livestock losses due to predators will undoubtedly increase. | This language in Section 4.16.3 of the EIS has been updated as appropriate. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-62 | "Under Alternative B, 3,583,789 acres would be available for livestock grazing and 8,576 acres would be unavailable for grazing use." (p. 4-178) Comment: Alternative B analysis neglects to explain why livestock grazing is unavailable in the 8,576 acres and what permits are impacted by the action. | The BLM has reviewed Section 4.16.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-63 | "The effects on livestock grazing resulting from the development of ROWs would be similar to Alternative A, except 2,480,876 acres would be excluded from ROW development (481% increase, which would decrease the extent of related forage removal, but could decrease opportunities for access to remote locations within the allotments." (p. 4-178) Comment: ROWs should not prohibit livestock grazing permittees access to their allotments. ROWs excluded from development does not equate to road closures or inability to manage range improvements using vehicular access. | The BLM has reviewed Section 4.16.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-65 | "Impacts on livestock grazing from managing OHV use would be similar to those presented under Alternative A, except the areas currently designated as "limited to existing roads and trails" (2,398,839 acres) would be changed to "limited to designated roads and trails" (3,367,576 acres) and all routes would be designated as open, closed or limited." (p. 4-178) Comment: Changing the terminology from "existing" to "designated" roads and trails leaves the public unable to determine the actual impacts because the "designation" is unknown under Alternative B. Livestock grazing permittees should not lose access to administrative access for the purposes of managing their permits, livestock, and range improvements. | The BLM has reviewed Section 4.16.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-66 | 4.16.5 Livestock Grazing Management, Alternative D: "Under Alternative d, 3,589,859 acres would be available for livestock grazing, with 2,515 managed as unavailable for grazing use, about 1545 fewer acres available for grazing compared to Alternative A." (p. 4-181) Comment: BLM neglects to identify the areas where livestock grazing is unavailable. These areas are: Pine Creek Special Status Plant Exclosure, McKinnon Special Status Plant Exclosure,, and Palmer Draw Exclosure. Under Alternative A, Palmer Draw excluded livestock grazing from 970 acres. Alternative D analysis fails to explain why the BLM needed to increase the size of the exclosure, why the previous size exclosure is inadequate, and special status plants are now requiring additional protection in comparison to Alternative A. | The BLM has reviewed Section 4.16.5 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-67 | "The acres designated as ACECs would be decreased...Management within a portion of the Little Mountain ACEC would require a grazing plan prior to approval of an annual grazing authorization. This management could lead to a delay when livestock use could occur once an operator identifies a desire to graze within area (Previously known as the Red Creek Portion of the Greater Red Creek ACE, 55,880 acres)." (p. 4-181) Comment: This is the first time the BLM is requiring a grazing management plan. The BLM must explain why this is necessary for not only this area, but also at the RMP level. WDA does not support restricting grazing and putting the ownness to develop a grazing plan on the livestock grazing permittees/operator. If the BLM is requiring the plan, BLM must cooperatively complete the plan in a timely manner with the livestock grazing permittees and ensure grazing is not delayed. | The language in Management Action 7443 does not require that the grazing management plan be completed by the grazing permittee, nor does it prohibit the BLM to work cooperatively with the grazing permittee in developing this plan. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-74 | 4.22.2 Methods Analysis: "Total authorized AUMs are the same for Alternatives A and D. Total authorized AUMs are 6,202 less under Alternative B due to provisions that management alternative (prohibition on grazing in certain allotments. Under Alternative C, total authorized AUMs are limited to the highest level of billed use over the last 10 years (2009 -2018). That figure is 160,387 AUMs, which is 142,881 less than the authorized AUMs under Alternatives A and D." (p. 4-234). Comment: WDA fails to see in Alternative B, Chapter 2 where the total authorized AUM count is reduced by 6,202. Chapter 2 states: "The total authorized livestock use for a grazing season within RSFO would be the active use AUMs sustained on an allotment-by-allotment basis for livestock grazing." (p. 2-119). In addition to these AUMs, BLM is proposing to reduce grazing where standards are not met, and suspend AUMs in closed exclosures. BLM must combine all of these actions and compile the total AUMs impacted. We don't believe 6,202 AUMs is representative of the actual number of lost AUMs under Alternative B in its entirety. | The BLM has reviewed Section 4.22.2 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-76 | 4.22.5 Impacts of Alternative B, Quantified Economic Impacts: "The quantified impacts of livestock grazing, coal and soda ash production, and recreation are the same under Alternative B as Alternative A." (p. 4-258) Comment: The economic impacts analysis for livestock grazing is solely based on the difference between AUMs, which is 6,202. While this seems relatively benign in relation to the total AUMs in the project area, the economic impacts analysis neglects to include the cumulative impacts and subsequent economic effect Alternative B will have. The economic impacts left out of this analysis include the predator losses to livestock producers who no longer can lethally remove predators. The death loss of livestock without lethal control is likely to increase significantly. Additional economic effects the impact analysis neglects to calculate is the loss of AUMs from implementing the management actions which reduce AUMs by 20% where Wyoming Land Health Standards are not met. Regardless if livestock grazing is the significant causal factor, up to 60% ofAUMs could be removed. This could dramatically change the economic impacts analysis if BLM provided the information based on existing standards evaluations. | The BLM has reviewed Section 4.22.5 of the EIS and determined that the existing analysis is adequate. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-77 | "Alternative B would restrict certain management practices, which could increase costs. Chemical treatments for vegetation management are specifically allowed under Alternative A, but not included as an option under Alternative B."(p.4-259) Comment: Areas infested with cheatgrass, or other noxious and invasive weed species, can be one of the reasons a Wyoming Land Health Standards determination is not met, especially pertaining to Greater Sage-grouse. Reductions in livestock grazing could result in a 60% reduction by the third year due to not meeting the Standard for Special Status Species. However, BLM's Alternative B prohibits the use of chemical treatments to address these noxious and invasive species. Unless weeds are addressed, there is no possibility to work towards meeting the Standards. This is just one more example of cumulative effects and direct economic impacts to the livestock grazing industry where the analysis of Alternative B fails to address or identify the full impact of the Preferred Alternative. | The BLM has reviewed Section 4.22.5 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13784-78 | * Livestock would be prohibited in wetland and riparian areas that are not meeting PFC." Comment: Again, the economic impacts analysis fails to fully capture the extent of selecting Alternative B. Chapter 3, page 3-22 states the following: "Where livestock grazing has been identified as a significant causal factor (emphasis added) for not achieving land health standards, grazing use has been changed." As written Alternative B is legally noncompliant with 43 CFR 4100. The effects to the livestock grazing permittees from BLM modifying the permits by up to 60% for livestock being "among the contributing factors" will be devastating. | The BLM has reviewed Section 4.22.5 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13806-5 | In recent decades, ranchers have given more attention to the fact that their livelihoods require healthy landscapes, regardless of public or private designation. This I believe is not adequately represented in the DEIS, to the detriment of both public and private lands. While I appreciate as outlined above the commitment in the preferred alternative to ensuring healthy, intact landscapes, the management actions proposed for livestock grazing are so restrictive and unnecessarily punitive that they will likely result in making livestock operations economically unviable. This would have unintended consequences for both public and private lands as ranchers seek alternatives such as intensifying production on private lands, selling off private lands to developers, or pursuing other forms of income such as from industrial development. This would result in unintended habitat degradation and fragmentation. Rather than preserving management prescriptions as written in the preferred alternative, I recommend collaborating with livestock producers on site-specific and adaptive management strategies to make sure these wildlands remain thriving, working wildlands such as is generally presented in Alternative D. (In reference to management actions 6401-6417). | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13816-1 | MA 7539 Surface disturbing activities within 3 miles of trails is too far, ranchers need to be able to salt livestock for better distribution of livestock. Salting allows for more movement of animals 1/4 of a mile is much more realistic. | Management Action 6411 provides proposals for how salt and mineral supplements will be utilized within the Resource Area. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-1 | Our concern about the preferred alternative (Alternative B) is how the proposed management actions within the final RMP will effect our viability to maintain sustainable, economic and environmental, cattle ranching operations within the RSFO. We believe that the Draft Environmental Impact Statement (DEIS) does not fully evaluate the cumulative and unintended long-term impacts of the management actions proposed in the current preferred alternative. In relation to livestock grazing, we question if the need for such broad management action changes are warranted within this RMP when the overall rangeland health trend is static to increasing within the RSFO.1 | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-2 | For instance, we are troubled by MA 6404 and 6405 under the current preferred alternative. These actions seek to reduce available AUMs by 20% yearly, up to three consecutive years, and seek to establish stocking rates that target forage utilization in the 21-40% range, particularly in areas preferred by livestock. The high desert landscape is diverse, and the need for AUM adjustments varies from site to site. It is disconcerting to note that this variability was not adequately analyzed within the agency's preferred alternative of the Draft Resource Management Plan (RMP) and Draft Environmental Impact Statement (DEIS). The lack of a nuanced analysis raises significant concerns about the accuracy and appropriateness of the proposed AUM adjustments. Some areas may indeed warrant large AUM adjustments, while others may not. Without a site-specific evaluation, the proposed reductions risk being applied indiscriminately, potentially harming ranching operations that are not contributing to the identified environmental challenges. | Management Actions 6404 & 6405 propose four alternatives for the number of AUMs available for use by livestock within the Resource Area, as well as establishing stocking rates. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-3 | Bush Rim is managed by herding and Fish Creek is managed under a 2 year deferred-grazing rotation. Under the proposed alternative, a unilateral cut in AUMs, would seek to impose a solution but fail to address the underlying causal factors for "why" livestock grazing4, within each of these allotments, is contributing to the failure to meet Wyoming Land Health Standards without a site-specific analysis. As grazing permitees and active stakeholders in the RSFO management area, we find the term "generally 21-40%" to describe forage utilization levels to be ambiguous and concerning. The lack of specificity in this term raises questions about the precision and appropriateness of the proposed stocking rates. It is crucial to note that a 50% utilization level has been widely accepted and shown to result in a rangeland health trend that is static to increasing1. | A range of alternatives was considered for Management Action 6405. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-4 | Literature suggests that moderate levels of grazing propagate resilient ecosystems by suppressing exotic species proliferation.2 This is also suggested, first hand, by BLM data from our grazing allotments and current trend levels observed within the RSFO.1 After thorough consideration, we propose that the BLM accepts MA 6404 and MA 6405, as written in Alternative D of the Draft Resource Management Plan (RMP). This alternative, in our view, provides a balanced and viable approach that addresses both environmental concerns and the economic viability of ranching operations. We believe that Alternative D strikes an appropriate balance by taking into account the diverse nature of the high desert landscape and providing a more nuanced approach to AUM reductions and forage utilization levels. Accepting this alternative would mitigate the potential economic and environmental consequences for our ranch and the surrounding area. | Management Actions 6404 & 6405 propose four alternatives for the number of AUMs available for use by livestock within the Resource Area, as well as establishing stocking rates. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-5 | Additional concern lies in the restrictive nature of MA 6411, specifically regarding salt/low moisture block placement. We believe that salt blocks should be strategically placed in areas of disturbance, and any new disturbance should be minimized to the greatest extent possible. The current constraints outlined in the preferred alternative may inadvertently limit our ability to appropriately manage salt block placement in response to the needs of our ranching operations. As ranchers within the arid high desert environment we understand that soil erosion occurs most in areas of livestock congregation around water and salt/low moisture blocks. Typically these areas are sacrificed because of the repeated trampling of the soil. Limiting the ability to place salt blocks in close proximity to man-made water sources (i.e. dams and dugouts) would inadvertently cause soil loss in new areas. The conservation mindset would be to minimize the disturbance as much as possible. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-7 | Our primary concern with MA 6414 lies in the prohibition of livestock grazing within riparian areas if they do not meet Proper Functioning Condition (PFC) criteria. It is crucial to emphasize that riparian areas are dynamic ecosystems that can recover and thrive under proper grazing management practices. The outright prohibition in the preferred alternative (B) may not take into account the positive contributions of well-managed livestock grazing to riparian health. Our concern is that; in allotments that contain long watersheds or large riparian areas significant costly structural range improvements would need to be constructed to limit livestock access. These large structural improvements have the potential to fragment large and small game habitat, in addition to providing a nesting perch for raptors in core sage grouse areas. Initially, these improvements might not be warranted if other management changes (i.e. changes in timing of use, duration of use, grazing management system ) are deemed appropriate to facilitate recovery of PFC. In addition, Swanson et. al. (2015) suggests that proper grazing management has the benefit of facilitating recovery within the riparian zone.3 In contrast, we would like to highlight that the Management Action (MA) in Alternative D of the Draft RMP, does not include a similar action to prohibit grazing in riparian areas solely based on PFC criteria. Alternative D provides a more balanced approach that acknowledges the dynamic nature of riparian ecosystems and the potential benefits of well-managed grazing to their health. | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13821-8 | To summarize, the unintended consequences of jeopardizing the economic viability of ranching operations within the RSFO could be severe. Increased grazing pressure on adjacent private lands may lead to additional environmental stressors across the broader landscape, counteracting the intended conservation-minded environmental goals of the plan. Additionally, the economic strain on ranching operations might result in changes in private land use that could negate the overall effectiveness and intent of the proposed plan. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. Section 1.4 of the EIS explains "Lands covered in the RMP will consist of public land and split estate lands managed that the BLM manages. No decisions will be made relative to non-BLM administered lands." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13823-1 | What I feel the RMP does not portray accurately is the true extent of the economic fall out that is plausible under the proposed plan. Agricultural, while a small percentage employment sector, is not directly reliant on the mining, oil and gas industry. However, it is also an industry that can be largely crippled by Alternate B. Anyone with knowledge of the business model typical of the modern ranch would conclude that the provision to remove 20% of the allotted AUM's in any given year would be untenable for any ranch, let alone if the reduction were to reach the proposed maximum of 60%. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13823-3 | It also seems unwise to implement a plan while ignoring the variable of horse management. Until the lawsuits regarding the management of feral horses are resolved, how could the BLM possibly adjust grazing practices and land use allocation? The issue of feral horse management has been a crux of land use conflict in the region since the "Wild Free-Roaming Horses and Burros Act" was implemented and there cannot be a sustainable plan implemented to protect rangeland, without a finalized quota for feral horse numbers. | Wild horse management within the Resource Area was updated via a 2023 Record of Decision and Resource Management Plan Amendment. All management actions from that amendment have been incorporated into this RMP Revision. See the Wild Horse Management Actions, beginning with Management Action 4900. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13832-1 | MA 4420 Prohibit livestock grazing from big game parturition areas, there is no basis for this regulation recommend plan A or D. All grazing rotational systems would need to be changed, while the current system seems to be working well. | Management Action 4220 proposes four alternatives regarding parturition habitat management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources– | #13844-1 | MA 6404 Should read meeting or making progress towards meeting the Wyoming Land Health Standards and to meet the goals and objectives of the Rmp. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |

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| Livestock Grazing Management (6400-6417) | | | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13849-1 | Land Resource #6404. Page 2-119. Continuing current levels of livestock grazing just makes sense. Declining livestock numbers across the United States and an increased demand for beef in the consumer market is just one reason why livestock should continue grazing and AUMs should not be cut. Alternative D maintains the RSFO AUMs while still allowing for adjustments of active use AUMs when site-specific monitoring/assessment data, the results of a land health evaluation, or a site-specific NEPA analysis demonstrates that an adjustment is appropriate to facilitate proper grazing management. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13889-3 | 6411 Regarding Salt or mineral placement A or D provide the most effective management objectives for Livestock grazing management and the natural resources, trails and water improvements. Salt is a way to move livestock from one area to another reducing grazing pressure in certain areas and utilizing forage in areas off the streams or watering holes. Reasonable placement must occur if it defeats the purpose of rotating salting locations, too far from the area the livestock will not travel thus defeating the purpose. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13892-3 | Alternatives A &; D would maintain authorized grazing use at current levels, while Alternative C would cut authorized use by 50%. But these pages in the DEIS do not specify exactly what the authorized use level would be under Alternative B, a violation of NEPA. The BLM must define the specific level of authorized use for this alternative. Page 4-234 mentions that total authorized AUMs would be reduced 6,202 AUMs under Alternative B, and page 4-233 assumes that authorized use would be 297,066 AUMs, but this number must be set out in the management prescription for the alternative, not just in an analysis of consequences. | The language for Alternative B in Management Action 6404 has reviewed and updated as needed. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13892-8 | The plan prescribes "light grazing" which it describes as "livestock grazing that consumes no more than about 30% of the current year's growth of forage plants. Light refers to the effect on the landscape, which is measured through utilization monitoring. You may reduce the number of animals by 30% and still not achieve 'light grazing,' if those animals that remain consume more than 30% of the current year's forage growth." What will the impact of this change mean to livestock production in the RSFO, and to the sustained yield goal enacted by Congress? | A range of alternatives was considered for Management Action 6405. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13892-9 | Page 2-122 shows that only Alternatives C and D (of the four alternatives) allow for livestock trailing. Alternatives C and D would authorize livestock trailing, "on a case-by- case basis, based on appropriate, site-specific NEPA compliance." The DEIS should note that livestock trailing is eligible for a categorical exemption. The BLM should not provide for additional environmental analysis for continued use of historic trailing, and the final decision on this RMP should include provisions for authorizing livestock trailing. | Livestock trailing is specifically provided for in Alternatives C & D of the EIS. While livestock trailing is not prohibited in Alternatives A & B, it is also not specifically provided for. The opportunity to authorize livestock trailing by utilizing a categorical exclusion in accordance with FLPMA Section 402(h)(2) would be provided for under all four alternatives in Management Action 6412. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13892-11 | As written, the DEIS indicates "animal control" would be prohibited. This statement should be deleted from the plan. It is not scientifically supported and the broad and undefined statement of "animal control" could prohibit the control of wild horses, feral dogs, rabid skunks, and capture of ungulates for research purposes. | Management Action 4211 proposes four alternatives regarding animal damage management within the Resource Area. Impacts to the various resource values are provided for throughout Chapter 4 of the EIS, for all four alternatives of Management Action 4211. Management Actions 4200-4213 discuss the management of invasive species and pests. Section 1.4 of the EIS explains that none of the decisions in this RMP Revision would apply to non-BLM administered lands. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13892-13 | How the BLM's glossary defines words will dictate how resource use is restricted. For example, Alternative B proposes to "prohibit livestock grazing in big game parturition habitat during the birthing season." The glossary defines big game to include elk, deer, bighorn sheep, moose and pronghorn. That means that livestock grazing is prohibited even in pronghorn antelope fawning habitat during the birthing season, so no domestic sheep or cattle on grazing allotments through June 30. Really? Did the BLM only mean to apply this term to specific designated birthing areas and only for certain big game species like elk, or only in certain designated areas? As written, the document would prohibit any livestock grazing on most of the district through June 30. | Management Action 4220 proposes four alternatives regarding parturition habitat management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13892-25 | Page 3-8 states, "There currently are no bighorn sheep herd management areas in the planning area due to conflicts with domestic sheep grazing allotments (primarily disease transmission from domestic to wild sheep)." This statement is factually incorrect and prejudicial. Change it to: "The RSFO is outside of Wyoming Bighorn Sheep Management Areas as designated by Wyoming Statute § 11-19-604." | Section 3.7.1 of the EIS has been reviewed and determined to be accurate in relation to Big Horn Sheep. |
| 829 - Land Resources–Livestock Grazing | #13895-1 | Under the Taylor Grazing Act, grazing districts have been identified on federals lands and includes those lands determined to be "chiefly valuable for grazing and raising forage crops." 43 U.S.C. § 315. The BLM provides no information or data to show that these areas are no longer "chiefly valuable for grazing" or are otherwise lack sufficient forage to support livestock grazing and wildlife. | Section 1.4 explains that "The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies." All management actions comply with all laws, regulations, and policies. This would include the Taylor Grazing Act. |

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| Management (6400-6417) | | | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13895-2 | Finally, as a private landowner and lessee of other private lands in the area, there is serious concerns about how Preferred Alternative B impacts the ability to access and otherwise use and develop private and state lands due to the massive number of restrictions placed on neighboring public lands. The impact of ROW exclusion areas and restricting motorized travel to designated roads will have on grazing, and other multiple uses, is also not adequately addressed in the DEIS due to the BLM's failure to disclose the connected and foreseeable actions of future travel management planning and foreseeable road closures. Under Preferred Alternative B, the BLM is no longer managing for multiple use and sustained yield but instead closing-off public lands and unlawfully restricting access to state and private lands at the expense and to the detriment of providing healthy rangeland, forest systems, and watersheds. | The BLM has reviewed Section 4.22 of the EIS and determined that the existing Socioeconomic analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13904-5 | MA 6404 Alt B This alternative goes against everything we, as cattle grazers have been trying to do for the past 10 years. It doesn't recognize that we have worked diligently and improved the riparian areas. This MA only serves to punish livestock grazers. This should read something like this: Adjust active use AUMs (increase or decrease) when site-specific monitoring/ assessment data, the results of a land health evaluation, or a site-specific NEPA analysis demonstrates that an adjustment is appropriate to facilitate proper grazing management to provide for meeting or making significant progress towards meeting the Wyoming Land Health Standards and to meet the goals and objectives of the RMP. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13904-6 | MA 6411 Alt b is unreasonable. Salt or mineral within 500 ft of water, wetlands, or riparian area is adequate. 1/4 mile is unreasonable and not conducive to livestock or resource management | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13905-8 | We support the establishment of the Great Sand Dunes ACEC (DEIS at 2-185), and its management to protect dunal flockets (vernal ponds) for amphibian and other wetland life. The dune ponds are habitat for the rare Great Basin spadefoot. Given the scarcity of forage within the dunes, the dune areas should be closed to grazing. | Excluding livestock from the dunal ponds would be an implementation level action that would be beyond the scope of this planning level document. See Section 1.4 of the EIS for the scope of this planning effort. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13916-5 | MA 6404 Alt B This alternative goes against everything we, as cattle grazers, have been trying to do for the past 10 years. It doesn't recognize that we have worked diligently and improved the riparian areas. This MA only serves to punish livestock grazers. This should read something like this: Adjust active use AUMs (increase or decrease) when site-specific monitoring/ assessment data, the results of a land health evaluation, or a site-specific NEPA analysis demonstrates that an adjustment is appropriate to facilitate proper grazing management to provide for meeting or making significant progress towards meeting the Wyoming Land Health Standards and to meet the goals and objectives of the RMP. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13916-6 | MA 6414 Alt B does not hold up the Wyoming Land Health Standards and guidelines. PFC is only one tool, of many, to determine if meeting std #2. Furthermore, the point is that we need to meet or be making significant progress towards meeting the Wyoming Land Health Standards. | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13918-1 | We also disagree with BLM's assessment that livestock grazing will not be significantly affected by such a vast designation of ACECs. We believe that ACEC designation will ultimately be used to prohibit ranchers' ability to make rangeland improvements, which are vital to reducing landscape impacts. | As described in Management Action 6416 range improvement projects would be allowed under all Alternatives. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13923-9 | Eliminating grazing in the Red Creek Grazing Allotment may concentrate grazing operations on the adjacent private and leased state lands which may cause undue environmental degradation. The land in this area represents some of the most important riparian areas in the Red Creek watershed, which is home to one of the only populations of the native Colorado River cutthroat trout in Wyoming. The degradation of the riparian areas, and subsequent erosion, may increase sediment loading and salinity downstream in the Green River. In addition to impacts to riparian areas, the prohibition of grazing in the Red Creek Grazing Allotment may lead to construction of fencing to ensure livestock do not enter the allotment. This could have the unintended consequence of restricting access to wildlife, such as elk, pronghorn, mule deer and moose, to habitat in the Red Creek Basin. | Management Action 7443 proposes four alternatives regarding livestock grazing within the Red Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13936-1 | I don't think the B alternative was sufficiently analyzed in regards to the impacts to grazing with the NSO, no early summer grazing in parturition areas, and not grazing streams not at PFC, and restrictions to fence/wells as tools to distribute cattle off of riparian areas. | The BLM has reviewed Section 4.16 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13940-10 | Management Action #6404 under Alternative B states: "If a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease up to three consecutive years (60%) in active AUMs until land health standards are met." Id. at 2-119. This conflicts with the Wyoming Land Health Standards, which require a determination that livestock grazing is a significant causal factor before reductions can occur. Handbook 4180-1, pp. III-12 - III-14 (Jan. 19, 2001). | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. As stated in Section 1.4 of the EIS the "proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations and policies." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13940-11 | Alternative D also states that "[r]eductions in grazing use in industrialized areas could become necessary if mitigation is insufficient to maintain the current level of livestock grazing." Id. JRB does not support the reduction in grazing when industrial activity is the cause of loss of forage, invasive species, unsuccessful rehabilitation, or others. The grazing permittees should not be the ones to face reductions when their grazing activities did not cause the problem. | Management Action 6413 prescribes that reasonable and prudent mitigation would be implemented to maintain the availability of public lands for authorized livestock grazing use in areas of intense industrial operations. Under this management action reductions in grazing use would only occur when mitigation is insufficient to maintain the current level of livestock grazing. The language in Management Action 6413 does not include any actions that would prohibit negotiation or compromise between affected parties. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13945-3 | 3. MA #6404 requires 20% annual livestock grazing reductions to up to 60% for allotments if a single rangeland health standard is not met. Alternative B does not define whether a standard on a single site requires the reduction, but it is conceivable that a single site could be used to reduce a grazing permittee by 60% on an entire allotment. Grazing reductions seldom address the problem because the problem is generally due to livestock grazing use distribution, which requires using various management techniques, including salt and mineral placement, pasture use timing, herding and other measures. A simple reduction in livestock use is punitive to the permittee and does nothing to identify the reason for the problem and solutions to address the problem. The Draft EIS does not fully account for the social and economic impacts of the likely extensive reductions in livestock use to permittees and the local economy. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. Socioeconomic impacts are provided in Section 4.22 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13945-4 | 4. MA#6411 requires a minimum distance of 1/2 mile from riparian areas and certain roads for livestock salt and mineral placement. Permit terms and conditions have generally used 1/4 mile as the distance, which is a good practice. Riparian area management often requires strategic placement of salt and mineral to draw livestock off of riparian areas and encourage grazing use in the uplands. In many areas of the allotments near the Shoshone or Bridger-Teton National Forest boundaries it is difficult to find a place to use salt and mineral that is at least 1/2 mile from a riparian area. This blanket approach is not very well thought out or is a deliberate effort by the BLM to set up failure for the grazing permittees by taking away a key livestock management tool. | Management Action 6411 proposes four alternatives regarding how salt and mineral supplements may be utilized within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13945-5 | 5. MA#6414 will prohibit livestock grazing in riparian areas that do not meet PFC. Many stream segments do not meet PFC, but are moving toward PFC. The process to reach PFC often requires years of management. A single year of spring flooding that takes out beaver dams and causes erosion may set back attaining PFC for years or even decades. If a stream segment does not meet PFC, it is not a simple matter to just prohibit livestock grazing from the stream segment because riparian areas are not fenced and not even susceptible to being fenced. As a result, livestock grazing would be prohibited from an entire pasture or and entire allotment, potentially for years, which will put the permittee out of business if they are highly dependent upon the allotment for their summer and fall grazing. The Draft EIS does not quantify the number of stream miles that are currently not in PFC status nor does it attempt to show the number of AUMs that would be lost to grazing due to a prohibition of grazing on stream segments that are not meeting PFC. | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13945-6 | Yet, the Draft EIS makes no effort to determine the extent to which Alternative B (or any alternative for that matter) will lead to grazing allotments becoming economically unviable to use for livestock grazing and the consequential sell off of private land inholdings. The Draft EIS also makes no attempt to determine the likely environmental impacts to wildlife habitat, open space and visual resources from the development of private lands that are no longer viable for livestock grazing due to loss of economically viable grazing use of the federal BLM land imposed by Alternative B. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-2 | Page 2-179; Management #7423 "Modify livestock grazing objectives and systems to manage for plant condition and composition most ecologically beneficial to identified wildlife species, while also considering the habitat of other species, in areas identified as habitat for Special Status Species, crucial winter range, or parturition habitat for big game." -Alternative A, which manages everything, is a much more rounded and balanced approach when considering plant condition and composition. Why single out a specific species? In this case big game when the elk herds on Aspen are so over-populated they are causing over grazing and the Wyoming Game and Fish are installing 8 ft tall fences around the aspen clones. Moreover, think about the ecological harm done by the excessive wild horses, especially during the winter months. | Management Action 7423 proposes four alternatives regarding livestock management objectives in the Greater Red Creek ACEC. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |

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| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-3 | Page 2-181; Management #7433 "Prohibit livestock grazing in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion (Map 2- 30)." -Any alternative other than B is acceptable. Alternatives A, C, and or D would maintain rangeland health. The stream is at PFC and the sheep help suppress the cheatgrass by grazing in the early summer. So why remove the livestock? They are a tool in helping maintain healthy land conditions despite the disproportionate wild horse herds who dominate and damage riparian areas. It's a proven fact that the wild horses have greater forage needs, graze closer to the ground, use the range year-round, and add harmful impacts to sagebrush and other critical browse species. | Management Action 7433 proposes four alternatives regarding livestock grazing within the Sage Creek Portion of the Greater Red Creek ACEC. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-4 | Page 2-68; Biological Resources #4420 "Prohibit livestock grazing in big game parturition habitat during the birthing season (usually from May 1 through June 30)." -The governor already has a task force to address wildlife corridors. The only reason to involve parturition is brucellosis. Alterative D is preferred because it appropriately defers consideration of potential grazing adjustments to meet conflicts, if any, with big game parturition, to the permit renewal process. Alternative D allows for site-specific management with a flexible timeframe, while other alternatives require a specific timeframe. | Management Action 4220 proposes four alternatives regarding parturition habitat management within the Resource Area. Impacts to livestock grazing are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-5 | Page 2-119; Land Resources #6404 "The total authorized livestock use for a grazing season within the RSFO would be the active use AUMs sustained on an allotment- by-allotment basis for livestock grazing, providing the Wyoming Land Health Standards are met. If a land health evaluation shows that land health standards are not met and current livestock grazing management is determined to be among the causal factors, implement a 20% reduction annually from the 10-year average of actual billed AUMs for each permit/lease up to three consecutive years (60%) in active AUMs until land health standards are met. Adjust reductions if it has been determined that significant progress has been made toward achieving land health standards." -I would be ok with either Alternative A or D. Rangeland health decisions should be made off of monitoring data, not an across the board rule of thumb. Generally speaking, rangeland health problems are often due to distribution, not stocking rates. For example, being able to create alternative water sources for all species so not just one trail takes the beating. But just for the record, rangeland health standards have been monitored and continue to meet, and more times than not, even exceed requirements and expectations on the lands we hold the permits to. Our non-use or under-use has not been due to resource conditions. Market conditions, generational changes, and other business decisions are just a few of the reasons we have utilized what we have when we have. Let's not ignore the elephant in the room…wild horses! The main reason livestock operators like ourselves have utilized few AUMs is due to the ever increasing number of wild horses. The horses have greater forage needs, they graze closer to the ground, use the range year-round, dominate water sources and cause harmful impacts to sagebrush and other critical browse species. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-6 | Page 2-123; Land Resources #6414 "Prohibit livestock grazing in riparian areas that are not meeting PFC." -This is not feasible, nor is it reasonable. Suggesting you would have to rest, or worse yet, fence whole areas that are watered by that stream would be expensive and more importantly, would conflict with sage grouse running into the fence. It also states "no grazing". So the horses would still be able to graze but the livestock would not? Let's also remember that PFC is too vague of a monitoring tool to make decisions. PFC is used as an inventory; not the trend-data tracking tool it could be to help make lasting improvements and decisions. Additionally, an inadequate PFC may be caused by a stream geomorphology or a long-term drying trend as is common, and presently taking place, in this high desert. It's ridiculous and difficult to prove that a cow or a sheep caused a headcut. I guess Alternative C would still allow grazing in riparian areas so long as they are making significant progress toward meeting WY Land Health Standards. | Management Action 6414 proposes four alternatives regarding livestock management in riparian areas. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-11 | Page 2-122; Land Resources #6413 "Reduce areas open to grazing and available AUMs where industrial activity conflicts with grazing operations and rangeland management objectives. Conflicts could include loss of forage, unsuccessful rehabilitation of disturbed areas, invasive species, safety hazards, improper livestock distribution, or other circumstances." - Alternative D uses the best collaborative approach to address conflicts between grazing and industrial development. | Management Action 6413 proposes four alternatives regarding how livestock grazing will be managed in areas of industrial development. Impacts to livestock grazing are provided for in Section 4.16 of the EIS, for all four alternatives related to this management action. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-20 | Page 2-57; Biological Resources #4111 "rest all treated areas a minimum of five growing seasons from livestock grazing." -Alternative D provides for critical site-specific determination regarding rest of treated areas and is preferred because it allows for flexible management. What is the scientific rationale for 5 years? Who would fence out the wild horses, wildlife, and or big game animals if an area is to be rested for five years? To say nothing of the problematic and devastating effects such a lengthy rest would have for livestock operators. As the Governors Task Force also noted, "Alternative A did not provide clear language as to who would be responsible for the fencing out of livestock and big game animals if necessary". | Management Action 4111 proposes four alternatives regarding how long a vegetation treatment will be rested from livestock grazing use. Impacts to livestock grazing from this management action are provided in Section 4.16 of the EIS for all four alternatives considered for analysis. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13951-23 | Additionally, the full socioeconomic impact to grazing with regards to PFC and big game parturition and reductions in grazing due to not meeting rangeland heath was not fully analyzed in the livestock grazing impacts section. Reducing AUM's when monitoring data meets and often exceeds the environmental assessments is dishonest and underhanded. The full AUM reduction due to these requirements would greatly exceed those AUM's shown and analyzed as being cut under Alternative B. Besides, what is the justification for any changes to grazing since grazing is less than it has been for many, many years; less than it was when the last ROD was approved in 1997? | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |

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| | | Additionally, the Taylor Grazing Act spells out the AUM process. Furthermore, "the permitee or licensee has a right which is cognizable and protected by the courts" [Ragsdale, Calvin E. (1969) "Section 3 Rights under the Taylor Grazing Act," Land &; Water Law Review: Vol. 4 : Iss. 2 , pp. 399 - 430]. | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13958-1 | (6405) If our turnout date is moved back even thirty days the additional feed costs would be crippling to my operation. | Socioeconomic impacts are provided in Section 4.22 of the EIS. In the "Methods for Livestock Grazing" portion of Section 4.22.2 details are provided regarding the methods used to evaluate impacts to livestock grazing, including rationale for the methodologies used. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #13998-1 | as to table I, very much against 4 million acres bing used for grazging. reduce that to zero. we need a new plan for he public ALTERNATE Z. THE US PUBLIC SHOUDL BE CONSULTED ON EVERY LOGGING PLAN, SOLAR PLAN, OIL &; GAS TAKING - ANY IMPACT ON NATURE. that is alternate z. w[comment end] | Section 2.2.4 of the EIS explains why a Closure to Livestock Grazing alternative was not analyzed in detail. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14020-4 | Given the fact that the BLM has failed to assess Rangeland Health Standards for approximately 41 million acres it administers, further planning must examine and disclose how the agency aims to ensure complete and accurate monitoring. See Public Employees for Environmental Responsibility (PEER), BLM Land Health Status Report, November 2022, available here: https://peer.org/wp-content/uploads/2022/12/BLM-Land-Health-Data-Rpt-Nov-22.2.pdf (PEER Report). In fact, these very planning documents show that four grazing allotments remain unevaluated, including the largest allotment (Rock Springs). Vol. 1 pg. 663 map 3-11. Concerns related to a lack of monitoring are heightened by the fact that 50% of the total acres assessed by the BLM fail to meet Land Health Standards. PEER Report at 7. Considering the BLM's own disclosures, it is undeniable that livestock grazing is the main cause of allotments failing to meet Rangeland Health Standards throughout the country. | Information regarding Land Health Standards for Grazing Allotments within the Resource Area are provided in Appendix G of the EIS. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14020-5 | animal unit months (AUMs) used by the agencies to allocate forage for livestock grazing are egregiously outdated and should be updated to properly assess and address climate change. Current AUMs define the amount of forage needed to feed one 1000 lb. cow and calf for a month, even though the U.S. Environmental Protection Agency reported a mean weight of a cow was 1221 lbs. in 1990 and 1348 lbs. in 2015. United States Environmental Protection Agency (2018) A-250. Inventory of U.S. greenhouse gas emissions and sinks: 1990- 2016. United States Environmental Protection Agency available at:https://www.epa.gov/sites/default/files/2018-01/documents/2018_annex_3_-_part_b.pdf. This upward trend in the weight of cows demonstrates that there is an increase in overall forage use and physical influence on the land from cattle grazing on public lands, and that today a single cow and calf would account for 1.25 AUMs. Kauffman et al. (2022) at 1144. Despite this empirical data, this increase in cattle weight and influence is not currently considered in forage allocation, carrying capacities, or stocking rates - and could indicate that public land use by cattle may have increased by 25% over the past two decades. | The definition of an Animal Unit Month (AUM) provided in the Glossary of the EIS is consistent with the definition provided in 43 CFR 4100.5 and 43 CFR 4130.8-1(c). |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14020-6 | the BLM's own disclosures showing that livestock grazing is the primary cause of failing range health nationally and locally, the agency should more closely examine the proposed use assigned to livestock grazing. As disclosed in the Murderers Creek EA, recent interagency proposed actions continue allocating the vast majority of forage to livestock grazing, ostensibly based on nonexistent "obligations" to permit holders. This is also the case in these planning documents despite unambiguous direction from 36 CFR § 222.3 (b) and 43 C.F.R. § 4130.2(c) stating "[g]razing permits and livestock use permits convey no right, title, interest held by the United States in any lands or resources." This practice is in fact in complete violation of the authorizing Taylor Grazing Act, which unequivocally states that "[n]othing in this subchapter shall be construed in any way to diminish, restrict, or impair any right which has been heretofore or may be hereafter initiated under existing law validly affecting the public lands." 43 U.S.C. § 315. | As stated in Section 2.1 of the EIS "The alternatives represent reasonable approaches to managing resources and activities consistent with law, regulation and policy." |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14022-2 | SCCD is discouraged that the BLM wouldn't utilize the most current and relevant rangeland monitoring data that has been collected in the RSFO for this RMP revision. SCCD has been a part of several cooperative monitoring efforts in the RSFO and has compiled and summarized the data and sent it to the RSFO to be filed in the appropriate allotment files. SCCD has also worked cooperatively with grazing permittees, oil and gas operators, and BLM to conduct inventories associated with the Normally Pressurized Lance gas field as well as portions of the Jonah field. This data appears to have not been utilized and discounts the combined efforts of local BLM staff, SCCD staff, and users of BLM lands that have helped in the above efforts. | The level of data provided throughout the EIS is appropriate for a planning level document. See Executive Summary for a description of data use and planning needs. |
| 829 - Land Resources–Livestock Grazing | #14022-12 | MA#6404, SCCD disagrees that reducing AUM's is a sole answer to fix a resource issue. SCCD encourages the BLM to utilize a collaborative approach to fixing resource issues and not just the approach that cutting numbers will fix the situation. | A range of alternatives was considered for Management Action 6404. Impacts to livestock operations from all four alternatives are provided in Section 4.16 of the EIS. |

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| Management (6400-6417) | | | |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14022-13 | MA#6407, SCCD disagrees with the Alternative B approach to eliminating grazing from exclosures. Current range science doesn't agree with this approach, and it can lead to decadent stands of forage and decreased diversity within the exclosure. SCCD encourages working with livestock producers to include exclosures in a grazing plan. | Allowing livestock to graze within exclosures is considered and evaluated under Alternative C of Management Action 6407. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14022-15 | Page 4-49, SCCD disagrees with the statement in paragraph 1 that the proposed grazing restrictions under Alternative B will essentially be the cure all for resource issues. The current range science will disagree with this statement. Exclosures already exclude grazing annually if maintained properly and reduction of AUM's doesn't necessarily cure the resource issue. | The BLM has reviewed Section 4.6.3 of the EIS and determined that the existing analysis is adequate. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14023-6 | I recommend that livestock grazing adhere to best practices and require that upwards of 70 percent of herbaceous retention be required on grazed allotments to support watershed and wildlife health. (Western Association of Fish and Wildlife Agencies 2009; Holechek, J.L. et al. 2011. Range management principles and practices. 6th ed. Prentice Hall. Boston, Mass. | Management Action 6402 would allow for livestock grazing use to be adjusted in order to meet Land Health Standards. |
| 829 - Land Resources–Livestock Grazing Management (6400-6417) | #14032-1 | the Draft RMP/EIS discusses existing resources affected by livestock grazing management decisions and the number of range improvements constructed within the planning area. However, the discussion in Chapter 3.16 does not address how current management has contributed to degradation to resources. The qualitative discussion makes it difficult to understand how the alternatives will support achievement of land health standards. | The BLM has reviewed Section 3.16 of the EIS and determined that the existing information is adequate for a planning level document. |
| 830 - Land Resources–Recreation (6500-6557) | #142-3 | Under Alternative B, land resource # 6505 and # 6512 would negatively impact recreational activities in the area. These suggested requirements are an overreach and have little value in protecting natural resources. Most recreational users practice leave no trace principles and improve areas they would be camping and collecting firewood in. | See Chapter 2.2.6, Land Resources - Recreation, Management Actions 6506 and 6512 for the full range of alternatives analyzed. |
| 830 - Land Resources–Recreation (6500-6557) | #214-1 | I agree with the closure of climbing on boars tusk but I think the current wording is slightly problematic and may confuse people. The reason of closure should not include "surface disturbance" as that can mean anything where as it is actually an archeological site with rock art. | See Chapter 2.2.6, Physical Resources - Soil and Geological Resources, Management Action 1116. Language provided for closures is sufficient. |
| 830 - Land Resources–Recreation (6500-6557) | #258-2 | RECREATION(6500-6557) Hand gold panning is allowed but no sluice boxes for ALT B. what is the environmental bane of a sluice box that one shovels into by hand? The snowmobile trail on the continental divide will not be retained as well as the Killpecker Sand Dunes Special Recreation Area. How does this not kill off part of the local tourism economy? | See Chapter 2.2.6 Land Resources - Recreation management Action 6520 for a list of analyzed alternatives regarding prospecting. In the same section see Management Actions 6521-6557 for a range of alternatives related to Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #302-2 | We also have great concern as to how Alternative B will impact motorized recreation and hunting access in the in the Rock Springs management area. You have now acknowledged that the draft land use plan contains an error as to how many miles of roads will be closed under the proposed plan (the document currently states 4,505 miles of existing roadway will be closed). People from Wyoming and throughout the country have enjoyed motorized recreation in the Rock Springs resource management area for generations. With motorized travel restrictions already in place on many federal lands, we would hope that BLM would realize the benefits of promoting reasonable and responsible motorized recreation. Without a clear understanding of the impact of the proposed plan on recreation, the plan should be abandoned and a new plan developed or one of the other preferred alternatives adopted. | See updates to Chapter 4.17 of the DEIS removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #326-1 | I feel the alternative B may be too restrictive. I am older person and am limited in the distance I can walk. there for this is my reason for requesting a lot of the areas that are show as a Exclusion area be change to Avoidance. this is for OHV, roads and trails. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #8761-9 | Attractive recreational trails improve the quality of life in all regions, and this has been used as an important recruiting tool by local businesses, chambers of commerce and public agencies, which target people with special skills or talents, and encourage new and expanding businesses. https://headwaterseconomics.org/wp-content/uploads/Trail_Study_4-trail-use-in-minnesota.pdf | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources, including recreational trails. |
| 830 - Land Resources– | #8761-10 | The agency should adequately consider that the pandemic and social distancing requirements have significantly increased the public need for more dispersed camping opportunities. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources, including dispersed camping. |

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| Recreation (6500-6557) | | | |
| 830 - Land Resources–Recreation (6500-6557) | #8761-11 | The agency should adequately develop and consider site-specific data that demonstrates any impact of significance to the natural environment by motorized recreation and dispersed camping when compared to naturally occurring levels of impact and change. 16. The agency should adequately develop and consider site-specific data that demonstrates that closures of motorized and dispersed camping opportunities produce any significant benefit to the natural environment. 17. The agency should adequately develop and consider site-specific data that demonstrates significant measurable impacts (compared to naturally occurring) from motorized recreation and dispersed camping. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources, including dispersed camping. See section Land Resources - Off Highway Vehicles, Management Actions 6600-6620 for area designations. |
| 830 - Land Resources–Recreation (6500-6557) | #8761-12 | The Dyrt's 2022 Camping Report ( https://reports.thedyrt.com/2022-camping-report/ ) found that it is 3x harder to book a campground now than in pre-pandemic years. While over 8 million new people joined the camping community last year, the campground and dispersed camping capacity has not increased. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources, including dispersed camping. |
| 830 - Land Resources–Recreation (6500-6557) | #8761-13 | The agency should adequately evaluate and consider the public safety issues created by limiting dispersed camping to within 70-foot of a road. Two of our members recently witnessed a family camping within 70-feet of the road whose dog was hit and killed by traffic. The dog owner was experiencing extreme grief and shock. Just imagine a similar incident involving the loss of a child and how devastating that would be for the parents. The 70-foot limitation is not a reasonable restriction for public safety and safe camping. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources, including dispersed camping. Choosing a safe spot to camp on public lands is the responsibility of the recreator. |
| 830 - Land Resources–Recreation (6500-6557) | #8761-14 | The agency's project team should adequately consider that NEPA 1969 directed consideration of the human environment and the natural environment. The agency should adequately consider the value of motorized recreation opportunities on the human environment using site-specific data and analysis addressing social and economic values and impacts; the need for recreation and healthy activities; the need to experience "flow" and nirvana; the need to exercise our culture; and the need to address obesity and suicide issues, and the need to address physical and mental health needs. NEPA 1969 was intended to protect and promote We are a locally supported association whose purpose is to preserve trails for all environments equally. The depth and breadth of site-specific data and analysis of the human environment should be equal to that of the natural environment. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources. Personal benefits to recreational access are related to site specific planning and out of the scope of the DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #8761-15 | The agency should adequately consider that mental health needs for youth is at extremely high levels, continues to rise, and needs to be addressed with healthy activities. https://helenair.com/news/state-and-regional/montana-youth-mental-health-needs-on-the-rise/article_c9ad3613-68b8-591d-91fc-5dae86b9b364.html 19. The agency should adequately consider that the current lack of adequate positive recreational opportunities is producing a significant impact on the human environment including suicide and mental illness. 20. The agency should adequately consider that when the agency closes motorized recreation routes that it is contributing to human stress and mental and physical health issues. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources. Personal benefits to recreational access are related to site specific planning and out of the scope of the DEIS. Route specific Travel and Transportation Management decisions are outside the scope of the DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #8761-16 | The agency should adequately consider that motorized recreationists have been hammered by motorized closure after motorized closure in Wyoming and surrounding states.3 7. The agency should adequately consider that travel planning and other planning actions have closed 25 to 75% of the historic motorized routes and all cross-country opportunities since the 1960's. 8. The agency should adequately consider that the analysis should adequately disclose and evaluate the amount of motorized access and motorized recreation that has been lost to public use since the 1960's. 9. The agency should adequately consider and mitigate the significant negative cumulative effect of all motorized closures on the public. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #9355-1 | One thing that needs to be done is conservation stamps need to be required for all out of state camping and recreation. Charge out of state visitors $100.00 for conservation of lands and a fine of up to $500.00 for failing to obtain said stamp, by doing this you will be able to have better funds and resources to conserve our lands. | Conservation stamp programs are run by state agencies and are outside the scope of the DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #9721-9 | Alternative B's blanket prohibition on surface disturbing activities is overly drastic. Further site-specific analysis must be completed and potential mitigation or BM P's considered to determine effectiveness of surface restoration before complete prohibition is considered. | Multiple factors contribute to an area being considered for an NSO. See the analyzed range of alternatives in Chapter 2.2.6 for different considerations. |
| 830 - Land Resources–Recreation (6500-6557) | #9853-10 | * Alternative B of MA# 6504 states "other resource values" where SVP expects that these include paleontological resources. | A range of alternatives has been analyzed for undeveloped recreation sites in Chapter 2.2.6 management action 6504. |
| 830 - Land Resources–Recreation (6500-6557) | #9853-11 | * Alternative B of MA# 6505 states "Close areas to camping if resource damage occurs", but because paleontological resources are nonrenewable, detailed management plans must be in place to eliminate the possibility of damage to paleontological resources in such areas in the first place. | See Chapter 2.2.6 section Heritage and Visual Resources - Paleontological Resources 5300-5309 for a range of alternatives for Management Actions related to paleontological resources. |

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| 830 - Land Resources–Recreation (6500-6557) | #9853-12 | Alternative B of MA# 6516 states "Prohibit surface disturbing activities within three miles or the visual horizon, whichever is closer, of developed recreation sites unless such activities are determined to be compatible with or are done for meeting recreation objectives for the area." SVP hopes that paleontological surveys, mitigations, and excavations that will likely cause some degree of surface disturbance to be allowed. | See DEIS Glossary for definitions of 'Surface Disturbance' and 'Surface Disturbing Activities'. |
| 830 - Land Resources–Recreation (6500-6557) | #10225-3 | In polling our senior patrons we found, that for most of their lives, they have enjoyed traveling the existing backroads, two tracks and trails of Sweetwater County. This enjoyment has been passed on to their children and now their grandchildren. However, now in their later years, the only method of travel is some type of motorized vehicle. If Alternative B is out into place, anyone who is mobility challenged will no longer have the ability to enjoy the beauty of our vast desert resource, It is interesting that the ADA requires city businesses and public places to provide access to all, but none of this seems to appear in any RMP. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #10324-10 | As a college student, I do not have a large disposable income, and with things like park passes and entry fees increasing on land that I recreate, that does provide me some stress. I think it is important that not only minority groups are represented in land changing plans, but also individuals who are unable to afford some of the universal experiences in the area. I think it would be beneficial to discuss how fees for trails, parking lots, and land use would be dispersed, and how they would be created with the mindset of use for the majority of people. Just last semester in my Federal Lands class we discussed how in order to visit Yellowstone in the winter, the fees and cost associated with it provides a barrier to the majority of people, and though Rock Springs isn't a National Park, it is still important to consider any fees that could be placed on recreational opportunities and how that may discourage those wanting to enjoy our state. | There are currently no fees required to access any recreational areas in the Rock Springs Field Office. Potential future fee changes are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13064-6 | BLM Wyoming stated that it intends to remove the route closures and the references to the travel management plan from the draft Rock Springs RMP. However, BLM Wyoming did not specifically identify what would remain in the draft Rock Springs RMP and what would be removed. Therefore, the Committee would like to provide comment on the route closures and other negative impacts that Alternative B, as currently drafted, would have on Wyoming's recreation industry. | See updates to Chapter 4.17 of the DEIS removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13064-7 | Under Alternative B, the elimination of special recreation management areas would result in the entire planning area being designated as an extensive recreation management area.48 The draft Rock Springs RMP does not provide much information on what an extensive recreation management area is or what recreation focus it would provide. | See DEIS Glossary for definition of 'Extensive Recreation Management Area'. |
| 830 - Land Resources–Recreation (6500-6557) | #13191-1 | The final plan should loosen a number of the proposed management prescriptions in Table 2.1. Some of these restrictions appear to be more stringent than necessary. While I'm not prepared to address all of the many management prescriptions outlined in Table 2.1, the following is an example of one that appears to be more restrictive than necessary: "6505 Prohibit dispersed camping in riparian areas or within 200 feet of water…". Limited camping should be allowed in these areas. I encourage BLM officials to review all of the proposed management prescriptions in Table 2.1 to assure they are not more restrictive than necessary. | See Management Action 6505 for a range of analyzed alternatives related to dispersed camping in riparian areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-20 | 20. The task force supports responsible recreational use across the field office. Motorized and non-motorized access should be continued for both dispersed and developed recreation. We request that the field office invest more staffing and funding resources to support recreational use, wise management, monitoring, and mitigation as needed to address appropriate areas for expanded or concentrated use, necessary infrastructure improvements, and areas that need special protections. These efforts are necessary for both conservation special areas and special recreational places. The agency should work with local stakeholders, including state and local governments, to develop place-based plans that can address recreational needs while maintaining traditional uses within the Field Office area. | Program funding and site specific planning are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-72 | 6500 Same across all alternatives Allow commercial competitive events and organized group activities, on a case-by-case basis, where compatible with natural resource management objectives. The task force supports this management action because it supports recreation and economic development in the field office. | See Section 3.17 for a description of Recreation and Visitor Services in the Resource Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-73 | 6507 Alternative A, with amended/ additional text The Oregon Buttes, Honeycomb Buttes, Steamboat Mountain, Leucite Hills, Red Creek, Pine Mountain, Little Mountain, and Cedar Canyon areas would be managed to assure their continuing value for recreational opportunities. Recreation area management plans would be prepared for these areas if necessary. Alternative A is preferred with additional text to ensure that recreation area management plans will be developed to minimize conflicts between recreation and other types of resource uses. Revised management action with additional language in red: Recreation area management plans would be prepared for these areas if necessary to mitigate conflicts with other resource values and uses. | Alternative A is the existing management action from the 1997 RMP. See Management Action 6507 for analyzed range of alternatives related to possible future development of these management plans. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-74 | 6508 Alternative C Develop recreation project plans and an interpretive prospectus for the Sweetwater Campgrounds, Boars Tusk, Leucite Hills, and the Continental Divide Snowmobile Trail. Recreation project plans for the sites listed under Alternative C should be developed to minimize conflicts between recreation and other types of resource uses. | See Management Action 6508 for full range of alternatives analyzed for potential future development of the referenced management plans. |

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| 830 - Land Resources–Recreation (6500-6557) | #13210-75 | 6510 Alternative A, with amended/ additional text The Green River, Sweetwater River, Big Sandy River, and the Bitter Creek segment between the towns of Rock Springs and Green River would be managed for recreation values. Recreation area management plans would be developed, where necessary. The areas listed in Alternative A are popular recreation areas. Recreation management plans should be developed to minimize conflicts between recreation and other types of resource uses. Revised management action with additional language in red: Recreation area management plans would be developed, where necessary to mitigate conflicts with other resource values and uses. | See Management Action 6510 for full range of alternatives analyzed for potential future development of the referenced management plans. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-76 | 6513 Alternative A Recreation site development projects and access routes along intensively used streams and reservoirs would be managed to maintain or improve wetland habitat conditions. Alternative A is preferred because it draws attention to the need to maintain or improve wetland habitats along intensively used areas. | See management Action 6513 for full range of alternatives analyzed regarding recreational development adjacent to water features. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-77 | 6514 Alternative A Development of permanent recreation sites and facilities in undeveloped recreation use areas would be considered, provided proper mitigation and exceptions to Executive Order 11988 apply. The area within 500 feet of riparian areas and floodplains is an avoidance area for recreation site facilities. Exceptions may be considered following a site-specific analysis. Adverse impacts to riparian areas and water quality is prohibited. Water sources at undeveloped recreation sites would be monitored. If the water is not potable, signs would be posted. Alterative A is preferred because it allows development of permanent recreation sites and facilities in undeveloped recreation use areas, follows Executive Order 11988, and creates avoidance areas to protect floodplain values and allows exceptions following analysis. | See management Action 6514 for full range of alternatives analyzed regarding recreational development adjacent to water features. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-78 | 6522 Alternative A The Continental Divide Snowmobile Trail is designated a special recreation management area to place management emphasis on enhancing recreation opportunities and to focus management on areas with high recreation values or areas where there are conflicts between recreation and other uses (60 acres, Table 2-12, Appendix V and Map 2-29). A management plan for the Continental Divide Snowmobile Trail would be developed. Alterative A is preferred because it maintains the Continental Divide Snowmobile Trail as a special recreation management area and places management emphasis on enhancing recreation opportunities on this popular trail. | See management Action 6522-6524 for full range of alternatives analyzed regarding retention of the Continental Divide Snowmobile Trail Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-79 | 6523 Alternative A The integrity of the Continental Divide Snowmobile Trail and the South Pass Cross Country Ski Trail would be maintained by limiting (and in some cases precluding) surface disturbing activities or facilities on or within ¼ mile of the trails. The only exceptions would be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety. Alternative A is preferred because it maintains the integrity of the Continental Divide Snowmobile Trail and the South Pass Cross Country Ski Trail by limiting surface disturbing activities within ¼ mile of the trails and provides exceptions for the establishment of facilities for trail users. | See management Action 6522-6524 for full range of alternatives analyzed regarding retention of the Continental Divide Snowmobile Trail Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-80 | 6524 Alternative A The integrity of the Continental Divide Snowmobile Trail would be maintained to allow for continued snow machine use. The trail system may be expanded by adding loop trails. Maintaining trail integrity would be accomplished by limiting surface disturbing activities, structures, or facilities that block or hinder trail use on or within ¼ mile of the trail. The only exceptions would be facilities that support trail visitor use and experiences along the trail or to protect the health and safety of trail users. Alterative A is preferred because it maintains the Continental Divide Snowmobile Trail, a popular recreational route and economic driver for the region. None of the additional management actions include similar provisions. | See management Action 6522-6524 for full range of alternatives analyzed regarding retention of the Continental Divide Snowmobile Trail Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-81 | 6525 Alternative A The integrity of the Continental Divide National Scenic Trail would be maintained by limiting (and in some cases precluding) surface disturbing activities or facilities on or within ¼ mile of the trails. The only exceptions would be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety. Alterative A is preferred because it maintains and protects the integrity of the Continental Divide National Scenic Trail, a popular recreational route and economic driver for the region. | See management Action 6525-6528 for full range of alternatives analyzed regarding retention of the Continental Divide Snowmobile Trail Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-82 | 6531 Alternative A The former SRMA designation for the Killpecker Sand Dunes is retained (39,290 acres, Table 2- 12, Appendix V and Map 2-29). Alterative A is preferred because it retains the SRMA designation for Killpecker Sand Dunes at its current footprint. The SRMA designation is important for providing significant recreational opportunities in the region. | See management actions 6531-6536 for a full range of alternatives analyzed regarding the Killpecker Sand Dunes Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13210-83 | 6536 Alternative D 9,250 acres are designated open to off-road vehicle travel on the active sand dunes. Off- road vehicle travel on 3,581 acres of vegetated dune areas is limited to existing roads and trails. Alternative D is preferred because it is a reasonable management strategy to manage off-road vehicle travel in the Killpecker Sand Dunes SMRA while providing significant recreational opportunities. | See management actions 6531-6536 for a full range of alternatives analyzed regarding the Killpecker Sand Dunes Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13287-34 | The Barrel Springs Road and connecting county roads from Wamsutter should be designated as Backcountry Byways, and public rights-of-way should be acquired across the checkerboard along these county roads to facilitate public access to the overland trail and stage stations like Barrel Springs, Fort LaClede, and Hay Meadow. These sites of these stage stations should be acquired into public ownership, in cases where they occur on private checkerboard parcels. We support the designation of the Cherokee Trail Backcountry Byway. DEIS at 2-118. | See Chapter 3.22.5 for list of currently designated Back Country Byways and related acts. See Chapter 2.2.6 Management Actions 6300-6306 for a range of alternatives analyzed related to Back Country Byways. See also Appendix K for land tenure criteria. |

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| 830 - Land Resources–Recreation (6500-6557) | #13287-40 | We agree that Boars Tusk should be closed to climbing and OHVs, but disagree with building a fence around it. Carsonite signs indicating the closure and regular law enforcement patrols (and diligent issues of tickets and fines) should suffice. The development of high-voltage transmission lines east of Boars Tusk already mars this landscape; these lines should be prioritized for removal and relocation. | See Chapter 2.2.6 Management Actions 7455-7470 for a range of alternatives analyzed for the Boars Tusk Portion of the Greater Sand Dunes ACEC. |
| 830 - Land Resources–Recreation (6500-6557) | #13302-1 | Under Alternative B, only 13.9% of existing roads and trails would remain open to vehicle use. The draft Rock Springs RMP also does not provide a map to show the specific routes that would be closed. The effect of these route closures may be even more significant and detrimental depending on where these closures actually are. Without a map, I cannot accurately articulate the overall impact the route closures would have on recreation. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13330-12 | * MA # 6510: Sweetwater County Farm Bureau prefers Alternative C. Alternative B is the least favorable as "management of the Green River, Sweetwater River, Big Sandy River, and the Little Sandy River with priority given to other resource values" could potentially restrict and/or eliminate the designated AUMs of the area. | See Chapter 2.2.6 MA 6510 for a full range of alternatives analyzed related to the management of the Green, Sweetwater, Big Sandy, Little Sandy Rivers, and the Bitter Creek. Impacts to Livestock Grazing can be found in Chapter 4. |
| 830 - Land Resources–Recreation (6500-6557) | #13353-9 | The BLM preferred Alternative B fails to adequately consider the impact abandoning Special Recreation Management Areas as it relates to fuel treatments and wild?re suppression near SRMAs. Closing or limiting areas to recreational roads, trails, and routes use would decrease accessibility during emergency response, and prevent these features from being used as ?re breaks to inhibit or stop the progress of wild?res in the planning area. E?orts to restrict ?re?ghting equipment will delay emergency response, impede ?re suppression e?orts, and threaten life safety, property conservation, and resource values. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Specific actions proposed for the four alternatives relating to Wildland Fire can be found in actions 3000-3013. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13409-1 | Alternative B would greatly affect RECREATION routes in southwestern Wyoming. Under Alternative B, "2,352 miles of routes would be managed as open to vehicle use and 67 miles of routes would be limited to non-motorized or non-mechanized use." Most significantly, "4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed from the transportation network and allowed to return to natural conditions." The draft Rock Springs RMP does not define "natural conditions," so it is unclear how long these roads could be removed from the transportation network. I am deeply concerned that these route closures would reduce public access to public lands. Under Alternative B, only 13.9% of existing roads and trails would remain open to vehicle use. The draft Rock Springs RMP also does not provide a map to show the specific routes that would be closed. The effect of these route closures may be even more significant and detrimental depending on where these closures actually are. Without a map, I cannot accurately articulate the overall impact the route closures would have on recreation. | See updates to Chapter 4.17 of the DEIS removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13542-64 | Literature Cited. Pergams, O.R.W., C. Zaradi, A. Patricia. 2006. LC-15 The source used is outdated and irrelevant. From the National Park Service's own website, the number of visitors has increased over the last several years: https://www.nps.gov/subjects/socialscience/annual-visitation-highlights.htm | See updated literature cited section for removal of erroneous citation. |
| 830 - Land Resources–Recreation (6500-6557) | #13542-65 | Literature Cited. Roggenbuck J.W., A.E. Watson. 1994. LC-15 Using recreation statistics from 1991, over 30 years old, does not reflect current recreation uses in the RMP area. This article goes into acreage and use of the land and states that there is a decline in using the land for recreational purposes. More recent studies, including the University of Wyoming's 2023 Wyoming Outdoor Recreation Report, suggests that more people are visiting and recreating in Wyoming's open spaces than ever before. This recreation contributes to Wyoming's economy. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See updated literature cited section for removal of erroneous citation. |
| 830 - Land Resources–Recreation (6500-6557) | #13542-67 | Literature Cited. Wyoming Travel Industry. 2007. LC-15 This report is 17 years old. There is a 2022 report available on the Wyoming Travel Industry's website. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See updated literature cited section for removal of erroneous citation. |
| 830 - Land Resources–Recreation (6500-6557) | #13542-70 | Literature Cited. Sonoran Institute, Theodore Roosevelt Conservation Partnership. LC-16 This report published in 2003 uses hunting and recreation statistics from 2001. The 22-year-old statistics conflict current data published regarding recreation and hunting in Wyoming, including harvest reports published annually by the Wyoming Game and Fish Department and University of Wyoming's 2023 Wyoming Outdoor Recreation Report on recreation statistics. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See updated literature cited section for removal of erroneous citation. |
| 830 - Land Resources–Recreation (6500-6557) | #13651-52 | The BLM preference for and encouragement of dispersed and casual recreational use of the Field Office jurisdiction creates more widespread impacts which are harder to monitor and mitigate. It presumes visitors and recreationists will be good stewards who will try to minimize their impacts and who will leave no trace. This assumption requires monitoring and mitigation measures if not met. A passive assumption that off-highway vehicle users and other visitors will do the right thing (pg. 4-184) is not good management when there is no verification. | See Chapter 4.17.1 for a list of assumptions made in the Recreation Impact Analysis. |
| 830 - Land Resources– | #13651-53 | Page 4-185: Today we cannot presume that most people know how to visit recreational (including cultural places)in ways that minimize their impacts. For dispersed and casual recreation to work the BLM must have programs to engage the public in good stewardship practices. BLM should ensure these programs include an | See Chapter 4.17.1 for a list of assumptions made in the Recreation Impact Analysis. Public engagement and site specific monitoring plans are outside the scope of this document. |

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| Recreation (6500-6557) | | active educational component that goes beyond brochures and signage. The public needs to have the skills and an interest to ensure that locations they visit are not degraded and that they remain available for future visitor enjoyment.BLM needs to implement a program to monitor cumulative effects that arise from less formal recreation as well as from more focused site visitation. It should establish a program to regularly monitor condition of developed recreation sites (to include campgrounds, ACECs, SRMAs, etc.) so that it can assess and report on changes in condition. If resource degradation does occur, it should have plans in place to mitigate damage and prevent continuation of problems. | |
| 830 - Land Resources–Recreation (6500-6557) | #13651-54 | 4.17 Overall: The Alternatives differ in their use of ACECs, WSAs, SRMAs, Trail Protection Corridors. Each alternative proposes different special areas (ACECs, WSAs, SRMAs, Trail Management corridors), but it is unclear why preference is given to specific ones under any given alternative. The BLM should justify which special use areas are proposed under each alternative and it should explain how special use area definitions and boundaries vary between alternatives if they do. It is not clear why specific designations are being put forward under each Alternative. For example Alternative B, which proposes to withdraw and conserve the most acreage, does not include Trail Protection Corridors (proposed in Alternative D). | See Chapter 2.2.5 of the DEIS for an overview of the goals of each alternative presented. Additionally, refer to Chapter 4 for impacts from each of the four alternatives analyzed; and to Section 1.4 for the Planning Criteria for the RMP. |
| 830 - Land Resources–Recreation (6500-6557) | #13651-59 | Why are some campgrounds within right of way avoidance areas and others in areas which are open for development? This conflict needs correction as it will almost certainly result in conflicts in resource use and management. | See DEIS Glossary for definitions of 'Right-of-Way Grant'. Right of Ways are not required for casual use (also defined in the Glossary). |
| 830 - Land Resources–Recreation (6500-6557) | #13651-60 | 4.17 Alternatives: While the impacts may be the same for all alternatives (because the same sorts of improvements, development and uses are proposed), the ability for the BLM to manage, preserve and conserve recreational resources is not the same across the alternatives and BLM should stress this in the EIS. Only Alternative B provides BLM with the tools to sustainably manage resources, protect them and encourage their conservation. All the other alternatives are unbalanced with a bias in favor of resource users and developers, and their interests. | See Chapter 2.2.6 Management Actions 6500-6557 for a full list of analyzed recreational alternatives. Impacts from all four alternatives are presented in Chapter 4. |
| 830 - Land Resources–Recreation (6500-6557) | #13721-1 | A summary of Preferred Alternative B states that, "There would be fewer designated recreation sites and developed recreation areas, which could reduce the availability of facilities for use by the public. The management could provide opportunities for a more primitive recreation experience in many locations within the planning area. In addition, Alternative B would manage larger areas of viewsheds, and fewer acres of OHV routes." Our interpretation of this is that providing more "primitive" recreation experiences means favoring 'quiet-use' recreation activities at the expense of opportunities for motorized recreation access. This planning area is a very vast open space -it's questionable as to exactly how visitors would be able to access these 'increased opportunities for more primitive recreation' without a suitable range of motorized access routes on roads and trails. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13721-2 | Recreation opportunities across the Rock Springs Field Office (RSFO) are extremely important to Wyoming residents as well as our numerous out-of-state visitors. The proposal for there to be "fewer designated recreation sites and developed recreation areas" and to "reduce the availability of facilities" for the public is alarming and completely unacceptable. Recreation is a growing activity and it needs, deserves, and requires more rather than less emphasis from the BLM. Truly, it is astounding that the RSFO released this plan which proposes grossly negative implications for recreation at nearly the same time BLM nationally released its highly touted Blueprint for 21st Century Outdoor Recreation. The Blueprint advertises supposed major shifts as to how BLM prioritizes and supports outdoor recreation. It states that BLM is committed to working closely with communities and partners to respond to varying recreation opportunities and pressures and to seeking continuous program improvements. It notes a supposed shift from reactive recreation management to a proactive approach, enabling planning to consider sustainable resource management needs. In the draft RMP, the RSFO's interpretation of 'sustainable resource management' only includes reductions and closures, with emphasis on lessening motorized recreation opportunities and support. That is not acceptable. The Blueprint also includes four strategic pillars: 1) Grow and diversify resources for BLM Recreation, 2) Prioritize and embrace partnerships, 3) Expand outreach and establish a culture of inclusion, and 4) Meet the demand, protect resources and improve access. Clearly, the Draft EIS/RMP for the RSFO is quite out of sync with this newly announced BLM recreation initiative - under the preferred Alternative B it does not meet demands, it obliterates public access for all, and over-protects resources by improperly prescribing the unit using a 100% conservation-oriented agenda. | See Chapter 2.2.6 Management Actions 6500-6557 for a full list of analyzed recreational alternatives. Also see glossary for a definition of the 'Recreation Opportunity Spectrum' that BLM considers. |
| 830 - Land Resources–Recreation (6500-6557) | #13721-7 | We also request that additional open areas for OHV riding in the Killpecker Sand Dunes area be seriously considered for the final RMP preferred action alternative. OHV Rallies, Cross-Country Races and Outings OHV clubs and organizations from communities within the planning area hold various OHV endurance, race, and challenge course events, including four annual events and an average of three one-time events each year. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Killpecker Sand Dunes Open Play Area is retained under all 4 alternatives. |
| 830 - Land Resources–Recreation (6500-6557) | #13721-8 | Since this SRMA is proposed to be eliminated, the future management status of the Continental Divide Snowmobile Trail is unclear in the Draft RMP/EIS - it needs to be clarified how its status and management would change under Alternatives B, C and D. Our position is that this important trail segment must be allowed to operate as it has historically. | See DEIS Chapter 3.17.1 Recreation Use for information about SRMA designations. |

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| 830 - Land Resources–Recreation (6500-6557) | #13721-10 | This section of the Draft RMP/EIS is very poorly done and quite inadequate since it used recreation visits from 2011 through 2015. This is an extremely small, very outdated sampling that does not reflect current recreation trends. Table N-5 on page N-15 of Volume 2 shows that Recreation visits in 2015 were 847,318 - nearly double what they were in the first three years of this 5-year period and 64% greater than the fourth year which was used for these recreation usage calculations. This particular outdated sampling range results in an artificially low 5-year average. The document also improperly minimizes the 2015 increase by stating "it is unknown if this trend will continue." Reality is that recreation visits to public lands have continued to grow since 2015 - and exploded to new highs during and following the COVID-19 pandemic. Additionally, it states on page N-16 of Volume 2 that the RSFO recreation specialist who estimated recreation visitation patterns in the area deemed FY 2013 visitation data as "sufficiently representative for the overall analysis." This is wrong. Data that is a decade old does not reflect 2020-era recreation visitation patterns on these or any public lands in Wyoming. This entire recreation usage and impact analysis must be thrown out and be redone. Page N-17 of Volume 2 specifically notes that the economic impact of OHV riding has received considerable attention. Yet, it summarily dismisses relevant OHV studies that have been conducted by the University of Wyoming (Foulke et al. 2006 and Nagler et al. 2013). It also fails to consider the newer 2021 Wyoming Comprehensive Off-Road Vehicle (ORV) Recreation Report (Bastian et al. 2022). Instead of using Wyoming data from these reports, the BLM wrongly used National Forest NVUM modeling with the Ashley National Forest, which is an inappropriate proxy. | The socioeconomic report is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 830 - Land Resources–Recreation (6500-6557) | #13721-11 | The 2021 Wyoming ORV Report shows that OHV riding generates over $365 million per year in overall economic activity across Wyoming. Use data is provided for both visitor days and visitor trips. In particular, the 'Southwestern Wyoming' area - of which the RSFO is a predominate portion of - accounted for 10.6% of all Wyoming Resident trips and 7.6% of all Resident riding days. Nonresident trips to this area were 4.7% of the statewide total and 4.1% of Nonresident riding days in Wyoming. Residents spent an average of $55.57 per day and averaged 37.8 riding days per year - with total Resident ORV riding days totaling 2.2 million. Comparatively, Nonresidents spent an average of $87.27 per day while riding an average of 14.3 days per year in Wyoming - with Nonresidents riding days totaling 455,000 in the state. Consequently, there were approximately 167,200 Resident riding days and 18,655 Nonresident riding days within this particular area of Wyoming - totaling 185,855 recreation use days just from OHV recreation. ORV visitor spending from 15.3% of total statewide ORV trips in this area equates to over $55.8 million annually. | See DEI Volume II Appendix N.2.5 for summary of the social and economic impact analysis methods for recreation resources. |
| 830 - Land Resources–Recreation (6500-6557) | #13730-4 | "Limiting the cutting trees, and firewood for camping to designated areas" and that firewood would be provided. By WHO? Where? When? Ive always camped where I wanted and burned dead fall why is there a problem with that?! | See DEIS Chapter 2.2.6 Land Resources - Recreation Management Action 6512 for a range of alternative analyzed related to recreational firewood cutting. |
| 830 - Land Resources–Recreation (6500-6557) | #13759-3 | Recreationists tend to show acceptance of site hardening strategies (Cahill, Marion, & Lawson, 2008), as it helps increase longevity of the site and can improve the experience of the activity. Recreation of all kinds is going to occur on the landscape, and providing regulations on permitted uses and spatial scale of recreation would give the RSFO more control on environmental impacts and user conflicts than if there was less structured management. Personally, I would advocate for selective special recreation management within the designated areas, as well as preserving areas with wilderness characteristics consistent with alternative B. I want to suggest to RSFO that integrating SRMA's into alternative B will be helpful in concentrating recreation ecology impacts to smaller areas and thus protecting wildlife. | See DEIS Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13776-1 | To be useful, this plan must be based on current visitation numbers with the best possible growth trends being used to plan for future impacts. The numbers in Table 4-11 (Volume 1, pages 4-233 and 4-234) assume a constant annual activity level, and the data used to develop this draft of the Rock Springs RMP appears to reflect a percentage increase in estimated visitation rather than an accurately recorded visitation statistic. Furthermore, the report appears to be based on data from 2014, before the COVID-19 pandemic which spurred the latest increase in visitation. Statewide, recreation visitation has increased significantly and continues to trend upward. We disagree, as is suggested on page ES-1, that visitation is a "minor condition" or that the "baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives." | The socioeconomic report is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 830 - Land Resources–Recreation (6500-6557) | #13776-2 | * Limiting Recreation Management Areas will not protect resources and could create a situation where more resources are damaged through dispersed use. The BLM's preferred Alternative B identifies zero acres of special recreation management areas; the other alternatives have between 135,000 acres and 592,000 acres. Without appropriate management designations like SRMAs, there are limited tools for land managers to protect resources from degradation due to increased visitation. | See DEIS Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13776-3 | Failure to designate any SRMAs could increase user conflicts by placing recreators in the same places on the landscape, diluting the potential enjoyment for all recreators. For example, in the Red Desert, a camper may desire to camp at the only spring for 20 miles around, but that is also the only water for sage grouse, mule deer, or other species that rely on that area. With proper planning this conflict is easily avoidable; without these designations our ability to influence public behavior is diminished. | See DEIS Chapter 3.17.1 for information about SRMA designations. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |

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| 830 - Land Resources–Recreation (6500-6557) | #13776-8 | Similarly, we have concerns that removing the SRMA designation for the Oregon and Mormon Pioneer Trails area could ultimately reduce resource protection. A plan that manages for a high number of visitors to the area and mitigates damage may better protect resources. The details of use in this area, including the visitation numbers, are not made clear in Management Actions 6537-6539. | See DEIS Chapter 3.17.1 for information about SRMA designations. Chapter 2.2.6 Land Resources - Recreation Management Actions 6537-6539 for a full range of alternative analyzed for the management of the Oregon and Mormon Pioneer National Historic Trails Special Recreation Management Area. See management actions 7000-7022 for more management actions related to the protection of the trails. |
| 830 - Land Resources–Recreation (6500-6557) | #13784-57 | "Management of these recreation sites would continue to exclude forage from livestock use because these areas would be fenced. Because of the relatively small size of these sites, the impacts to livestock grazing would be minor." (p. 4-176) Comment: This section does not provide the number of acres livestock grazing is fenced out from utilizing forage. Additionally, the section does not tie back to the 970 acres mentioned earlier, leaving WDA unsure if these acres are above or in addition to the previous statement. Finally, "would be minor" assumes this will occur in the future, but Alternative A is the current management and would provide the existing impacts based on the management already occurring from when the plan was last revised. | See Table 1. Comparison of Land Use Restrictions and Allocations for number of acres unavailable to livestock grazing under each alternative. |
| 830 - Land Resources–Recreation (6500-6557) | #13801-1 | MA 6543 Alt B will no longer be the Wind River Front SRMA, this designation works well and should remain as is. Many different types of recreational opportunities abound in this area, hiking, hunting, fishing, horseback riding, snow mobile riding and atv riding, Just to name a few of the activities that public enjoys. | See DEIS Chapter 2.2.6 Land Resources - Recreation Management Actions 6543-6557 for a full range of alternatives analyzed for the Wind River Front Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13856-1 | While we appreciate the attention paid to and the retention of the SRMA for the CDT, such designation may not be the top priority if other management actions occur. The Agency's Preferred Alternative B would provide for the most ideal CDT experience by optimizing conservation efforts in the area, particularly for the CDT's scenic integrity. The attention that Alternative B gives to ACEC's is a top priority for CDTC, as the management criteria for an ACEC can help to retain the character of the CDT through conservation efforts that support wildlife and plant life habitat, biodiversity, migration corridors, and a more remote, primitive experience on the trail. Additionally, the actions identified in Alternative B and partially Alternative D would provide a generous buffer from development such as extractive activities, renewable energies, and other actions that could potentially degrade the environment surrounding the CDT and, consequently, the CDT Experience. | See DEIS Chapter 2.2.6 Land Resources - Recreation Management Actions 6525-6528 for a full list of alternatives analyzed regarding the Continental Divide National Scenic Trail Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13878-5 | The agency inappropriately constrains itself by placing lands in either "conservation" or "recreational" - focused boxes of management for many of its lands. Special places, such as the Northern Red Desert (which can be considered the Jack Morrow Hills area and South Pass, east of HWY 28), can be managed for several uses, such as conservation, wildness, or wildlife habitat as well as recreation, without harming those former values. In fact, a failure to do so can actually result in more harm to the resource. Let's take for example the Jack Morrow Hills area. Under Alternative B, the ACECs making up this area are predominantly designed to only focus on conservation values, not recreational uses. The BLM (per info shared at the Governor's RMP Task Force) says its options are only to overtly encourage lots of recreational use as a main objective, or not at all. There has to be some middle ground. Outdoor recreation is booming in the West and especially in Wyoming. The boom will come to BLM lands, and it's better to manage for it, than just ignore it. Even in the conservation- focused lands in the JMH, there are lots of signs of degradation from outdoor recreational use. There are few shaded places for camping and resting for people, and these get used a lot. I've seen a porta-potty thrown into a stream on the north side of Steamboat Mt. where people camp a lot. There's been several homemade potties made at Chicken Springs by Bush Rim, perched right over the spring there in the trees. | See Chapter 3.17.1 for a description of Special Recreation Management Areas and Section 3.22 for Special Designations. See Chapter 2.2.6 Management Actions 6500-6557 for a full list of analyzed recreational alternatives. |
| 830 - Land Resources–Recreation (6500-6557) | #13878-7 | The Steamboat Mt. camp area and Chicken Springs are examples of where people choose to camp in shaded areas and near water sources/springs. The BLM should recognize that they've not going to change decades of behavior at these places, so should proactively take some actions that that will protect the resource values as much as possible, while accommodating human use. MA 6513 Alternative B tries to address these needs near water sources and I support this action, as much is as feasible: Manage recreation site development projects and access routes along streams and reservoirs to maintain or improve wetland habitat conditions. I strongly urge the BLM to form partnerships with invested stakeholders and users that know these areas, and develop place-based recreational use plans. These plans will contribute towards the protection of special wildlife and conservation values as well. The draft RMP is insufficient with this management objective. | See Chapter 2.2.6 Management Actions 6500- 6520 for actions that may impact recreation in the Steamboat Mountain Area. Partnerships and site specific implementation actions are outside of the scope of the DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13880-21 | Finally, Alternative B removes existing Special Recreation Management Areas. BLM has argued that this will not impact recreation in any meaningful way, but officials from Wyoming Parks and Recreation have indicated that these Management Areas are a critical tool for managing recreation on the landscape. Specifically, these Management Areas help the state guide and disperse recreational activity to protect sensitive sites and wildlife while limiting congestion. In other words, Alternative B could actually result in adverse conservation impacts across large swaths of the RSFO under the BLM's stated scenario that Management Areas will be removed but recreation will not be limited. This seems fundamentally at odds with the "conservation" theme of Alternative B, raising questions about whether the BLM intends to pursue subsequent closures to recreation after removing the Management Areas. Clarification and further study on these points are essential, given that the impacts could be as large as $40 million dollars annually in an extreme scenario where recreation is severely curtailed. | See DEIS Chapter 3.17.1 for a description of SRMAs. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |

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| 830 - Land Resources–Recreation (6500-6557) | #13899-101 | Support for retaining select Special Recreation Management Areas (SRMAs) The agency has managed several areas as SRMAs since 1997 and should continue to do so - specifically, the Killpecker Sand Dunes, the Green River corridor area, and Continental Divide National Scenic Trail. These are locations that have historically been managed with an emphasis on enhancing the recreation experience, and it is reasonable to continue doing so. The proposal in Alternative B to not retain these SRMAs is at odds with community use and would not change visitation, but it would change the visitor's experience negatively. If SRMAs are retained, we encourage BLM to ensure these units promote responsible recreation by developing, and fully implementing, site-specific recreation plans to prevent and address conflicts with other users and resources. | See DEIS Chapter 3.17.1 for a description of SRMAs. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13899-102 | C. Consider adding the Great Divide Mountain Bike Route as a SRMA The BLM failed to analyze the Great Divide Mountain Bike Route261 as a SRMA, but this popular adventure cycling experience should be considered for management that emphasizes recreational values. The route traverses the western United States from Canada to Mexico and crosses the Rock Springs Field Office in the Big Sandy Foothills and Northern Red Desert. It is the longest route off-pavement in the nation and draws in cyclists and adventurers from around the world. The section of the route in the planning area is described as "character building" and "extremely picturesque,"262 highlighting the scenery and remoteness of the Big Sandy Foothills and Northern Red Desert. The management actions we outlined earlier in these comments would serve to maintain the experience of these wild lands for adventure cyclists, however, the agency should consider analyzing the benefits of including recreation-focused management (including educational resources and amenities like water wells) for these users. | The Great Divide Mountain Bike Route within the Rock Springs Field Office is located entirely on County Roads and is not under BLM jurisdiction. The Lander Road Back Country Byway is discussed in Management Action 6304. |
| 830 - Land Resources–Recreation (6500-6557) | #13904-7 | MA 6510 There should be additional language that states Recreation area management plans would be developed, where necessary to mitigate conflicts with other resource values and uses. | Management Action 6510 analyzes a range of alternatives regarding recreational planning for these waterways. |
| 830 - Land Resources–Recreation (6500-6557) | #13904-8 | MA 6522 Alt B does away with the Continental Divide Snowmobile Trail. The Continental Divide Snowmobile trail is designated as a special recreation management area. This designation needs to be retained. | See Chapter 3.17.1 for a description of SRMAs. Management Action 6522-6524 analyzes a range of alternatives regarding the Continental Divide Snowmobile Trail Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13904-9 | MA 6543 Alt B gets rid of the Wind River Front SRMA. This should be retained. Manage the Wind River Front SRMA for motorized and non-motorized recreationists to engage in hunting, hiking, horseback riding, wildlife viewing, sightseeing, fishing, and driving for pleasure in the back, middle, and front country settings. Manage the Continental Divide Snowmobile Trail for over-the-snow vehicle use. Various means of recreation are available in this area and need to be available to all not just the able bodied walkers. | Management Action 6543 analyzes a range of alternatives regarding the retention of the Wind River Front Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13916-7 | MA 6510 There should be additional language that states Recreation area management plans would be developed, where necessary to mitigate conflicts with other resource values and uses. | Management Action 6510 analyzes a range of alternatives regarding recreational planning for these waterways. |
| 830 - Land Resources–Recreation (6500-6557) | #13916-8 | MA 6543 Alt B gets rid of the Wind River Front SRMA. This should be retained. Manage the Wind River Front SRMA for motorized and non-motorized recreationists to engage in hunting, hiking, horseback riding, wildlife viewing, sightseeing, fishing, and driving for pleasure in the back, middle, and front country settings. Manage the Continental Divide Snowmobile Trail for over-the-snow vehicle use. Various means of recreation are available in this area and need to be available to all not just the able bodied walkers. | Management Action 6543 analyzes a range of alternatives regarding the retention of the Wind River Front Special Recreation Management Area. |
| 830 - Land Resources–Recreation (6500-6557) | #13932-1 | Wildlife killing contests are allowed to proceed on Bureau of Land Management lands without any special use permits or oversight from the Wyoming Game and Fish Department nor Federal Agencies. Animals killed in these events are categorized as predators in the state of Wyoming and are under the management of the Department of Agriculture and include coyotes, foxes, skunks, raccoons, jackrabbits, prairie dogs, and gray wolves. These contests are neither effective predator control to protect livestock nor do they provide any ecological benefits. Wildlife Killing Contests would fall under The Land Resources (LR) - Recreation (6500-6557) MA#6500 section for, "Allow[ing] commercial competitive events and organized group activities, on a case-by-case basis, where compatible with natural resource management objectives." Wildlife killing contests are not compatible with natural resource management objectives on the BLM. Nor do they meet MA#6502 requirements for the "health and safety of visitors." | Competitive hunting contests are subject to 43 CFR 2932 regulations for special recreation permits. The DEIS analyzes a range of alternative for SRPs in Management action 6503. |
| 830 - Land Resources–Recreation (6500-6557) | #13932-2 | In the Chapter 2, Section 21(b) of the Wyoming Game and Fish Department General Hunting Regulations (attached), there is a provision for, "Any person hunting predatory animals on public land with an artificial light or lighting device, thermal or infrared imaging or other light imaging device shall display an activated infrared (IR) strobe beacon on their person visible from at least one hundred (100) yards in every direction. If the predator hunter is enclosed inside a vehicle, an activated IR strobe beacon shall be displayed on the exterior roof of the vehicle so as to be visible for at least one hundred (100) yards around the vehicle." However, there is no requirement for other people recreating on public lands (including the BLM) to be wearing an infrared beacon or | Safe operation of hunting equipment is the responsibility of the user and is outside of the scope of this DEIS. |

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| | | any other beacon that has a light source. This is a public safety issue that is an easy fix for the BLM to prohibit all night hunting in the Rock Springs Field Office RMP. | |
| 830 - Land Resources–Recreation (6500-6557) | #13932-3 | Alternative B of MA#6503 allows for a case-by-case basis of reviewing special use permits for recreation. While no permits have been issued for wildlife killing contests, any future permits that are applied for, should be denied by the BLM for not adhering to the goals and objectives of the BLM Resource Management Plan. Namely: BR-16: Manage for the biological integrity of terrestrial and aquatic ecosystems to maintain or enhance fish and wildlife habitat BR-17: Manage for the biological integrity and habitat function of terrestrial and aquatic ecosystems to sustain, enhance, and/or optimize distribution and abundance of all native, desirable non-native, and Special Status Species consistent with habitat capability. | Competitive hunting contests are subject to 43 CFR 2932 regulations for special recreation permits. The DEIS analyzes a range of alternative for SRPs in Management action 6503. |
| 830 - Land Resources–Recreation (6500-6557) | #13955-1 | According to the most recent report from the 2022 Bureau of Economic Analysis Report on Outdoor Recreation, "Wyoming outdoor recreation employment increased from 15,285 to 16,202 jobs, accounting for 5.6% of the state's total employment." Wyoming's outdoor recreation economy increased to $2.02 billion according to the U.S. Department of Commerce's Bureau of Economic Analysis. According to the Bureau of Economic Analysis, in 2022 Wyoming's top three industries are oil and gas at $8.99 billion, $2.5 billion for travel and tourism, $1.12 billion for agriculture, and $5.7 Billion in labor income for oil and gas1 The data also shows that $1.712 billion in Wyoming is generated from agriculture and a total of 58,780 jobs for oil and gas. Oil and gas is also the leading industry in Wyoming producing $2.72 billion. The ACEC designations and Alternatives B and D would greatly hinder the economic opportunities throughout the state. Recreation alone is nationally a trillion dollar a year industry and any alternative other than Alternative C would deprive Wyoming from capitalizing on this growing industry. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. See Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 830 - Land Resources–Recreation (6500-6557) | #13955-2 | According to the most recent report from the 2022 Bureau of Economic Analysis Report on Outdoor Recreation, "Wyoming outdoor recreation employment increased from 15,285 to 16,202 jobs, accounting for 5.6% of the state's total employment." Wyoming's outdoor recreation economy increased to $2.02 billion according to the U.S. Department of Commerce's Bureau of Economic Analysis. According to the Bureau of Economic Analysis, in 2022 Wyoming's top three industries are oil and gas at $8.99 billion, $2.5 billion for travel and tourism, $1.12 billion for agriculture, and $5.7 Billion in labor income for oil and gas1 The data also shows that $1.712 billion in Wyoming is generated from agriculture and a total of 58,780 jobs for oil and gas. Oil and gas is also the leading industry in Wyoming producing $2.72 billion. The ACEC designations and Alternatives B and D would greatly hinder the economic opportunities throughout the state. Recreation alone is nationally a trillion dollar a year industry and any alternative other than Alternative C would deprive Wyoming from capitalizing on this growing industry. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. See Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 830 - Land Resources–Recreation (6500-6557) | #13955-10 | We have already seen an increase in closing dispersed camping across public lands across the nation. The desire and need for outdoor recreation has grown tremendously the past few years with no end in sight. The BLM should recognize the value that connecting with nature through dispersed camping and recreation brings. Restricting this form of recreation and limiting areas of use will only increase impact. We recommend adopting dispersed camping standards within this plan to require public input for any dispersed camping closures. Allowing dispersed camping should also be seen as a management tool for offsetting the socioeconomic inequities that are taking root as ultra-wealthy residents displace lower- and middle-income individuals and families from accessing monument areas. Many areas that are proposed for camping restrictions are used by visitors, locals and businesses such as guides and ranchers. Youth and educational groups also benefit from dispersed camping throughout the entire monument. Prohibiting wood gathering would negatively impact dispersed camping opportunities. There is a culture of camping and survival that needs to be protected through this management plan. | See Chapter 2.2.6 section Land Resources - Recreation, Management Actions 6500-6557 for a range of alternatives analyzed for recreational resources, including dispersed camping. |
| 830 - Land Resources–Recreation (6500-6557) | #13955-11 | Aircraft should be able to continue accessing Rock Springs as they have. It should also be noted that BLM doesn't have jurisdiction over airspace. Pilots who volunteer in emergency response situations often do training and use these airstrips. BLM should not be closing access to a user group that volunteers much of their time and resources. It is especially nonsensical to prohibit drones from being flown from roads and motorized trails, which already allow other forms of motorized devices. A good shorthand for understanding the current rules for flying drones on Bureau of Land Management land is that if you can drive a vehicle there, you can fly a drone there. This makes inherent sense because drones are a kind of motorized device. Under FAA regulations, all drone operations are governed by Part 107 of the Federal Aviation Regulations unless they qualify for the "Exception for limited recreational operations of unmanned aircraft" under 49 USC 44809. This requires, among other things, that "The aircraft is flown strictly for recreational purposes." The FAA explains on its website that, "The exception for recreational flyers only applies to flights that are purely for fun or personal enjoyment." | The Bureau of Land Management does not have jurisdiction over the Rock Springs Municipal Airport or the City of Green River's Airstrip. Airspace concerns are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-1 | To be useful, this plan must be based on current visitation numbers with the best possible growth trends being used to plan for future impacts. The numbers in Table 4-11 (Volume I, pages 4-233 and 4-234) assume a constant annual activity level, and the data used to develop this draft of the Rock Springs RMP appears to reflect a percentage increase in estimated visitation rather than an accurately recorded visitation statistic. Furthermore, the report appears to be based on data from 2014, before the COVID-19 pandemic which spurred the latest increase in visitation. Statewide, recreation visitation has increased significantly and continues to trend upward. We disagree, as is suggested on page ES- I, that visitation is a "minor condition" or that the "baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives." | The socioeconomic report is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |

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| 830 - Land Resources–Recreation (6500-6557) | #13974-2 | Limiting Recreation Management Areas will not protect resources and could create a situation where more resources are damaged through dispersed use. The BLM's preferred Alternative B identifies zero acres of special recreation management areas; the other alternatives have between 135,000 acres and 592,000 acres. Without appropriate management designations like SRMAs, there are limited tools for land managers to protect resources from degradation due to increased visitation. | See DEIS Chapter 3.17.1 for a description of SRMAs. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-3 | Failure to designate any SRMAs could increase user conflicts by placing recreators in the same places on the landscape, diluting the potential enjoyment for all recreators. For example, in the Red Desert, a camper may desire to camp at the only spring for 20 miles around, but that is also the only water for sage grouse, mule deer, or other species that rely on that area. With proper planning this conflict is easily avoidable; without these designations our ability to influence public behavior is diminished. | See DEIS Chapter 3.17.1 for a description of SRMAs. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-4 | Pushing visitors to dispersed use poses challenges for protecting natural and cultural resources. Recreation use plans at designated SRMAs and for dispersed camping areas could help limit resource degradation, mitigate effects of increased visitation, and otherwise provide for natural and cultural resource protection. Alternative A calls for such plans in several Management Actions (6507-6510, at a minimum) and is the preferable alternative for this topic. | See DEIS Chapter 3.17.1 for a description of SRMAs. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-5 | Emphasizing conservation and pristine experiences may limit the type of visitor able to enjoy public lands. Several places in Volume I mention the value of"pristine" experiences, with Alternative B's conservation focus offering the most of those opportunities. However, the ability to access such pristine areas may be limited by socioeconomic factors and physical limitations. Individuals with different abilities may not be able to access resources because of a lack of formal development or ADA accessibility. It is therefore important to consider roads and other access routes to key areas in this plan which provide a diverse representation of natural, cultural, and historically significant areas within the Field Office, ideally with varying levels of solitude and disturbance. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-7 | The quality of trail routes is of high-importance and single-track trails are desirable and sustainable. Alternative 8 identifies 67 miles of non-motorized routes, but does not seem to select for quality, only location. There is concern that this will limit the number of desirable useable miles. Also, two-track roads are useful for conveying visitors with multiple transportation modes and are often necessary for connecting certain areas. However, they are not often ideal routes for non-motorized recreation groups, especially. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-8 | The 39,290-acre Killpecker Sand Dunes SRMA is highly used. As a destination with many opportunities, the SRMA reduces the recreation impact on other sites, roads, and routes. Alternative C is an appropriate management for this area as outlined in Management Actions 6531-6536, with the area being properly monitored for resource degradation and misuse. | See DEIS Chapter 3.17.1 for a description of SRMAs. Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-9 | Similarly, we have concerns that removing the SRMA designation for the Oregon and Mormon Pioneer Trails area could ultimately reduce resource protection. A plan that manages for a high number of visitors to the area and mitigates damage may better protect resources. The details of use in this area, including the visitation numbers, are not made clear in Management Actions 6537-6539. | Chapter 4.17 of the DEIS analyzes recreational outcomes based on potential retention of different Special Recreation Management Areas. Management Actions 6537-6539 analyze a range of alternative regarding recreational aspects of the Oregon and Mormon Pioneer Trails. |
| 830 - Land Resources–Recreation (6500-6557) | #13974-10 | Monitoring for resource degradation is essential for ensuring users understand restrictions and that recreation management plans are being enforced. Law enforcement Gust one aspect of such monitoring) is only mentioned in this plan on Management Actions 5111 and 5309 with regard to specific and sensitive resources; it is needed throughout the Field Office. | See the Federal Land Policy Management Act for BLM's management responsibilities for public lands, including inventory and monitoring. |
| 830 - Land Resources–Recreation (6500-6557) | #14039-1 | In April 2022 the Department of Interior released it's Equity Action Plan which addresses the lack of access on public lands. In order to advance equity of access on public land for those with mobility impairment disabilities, it is important to recognize that discrimination towards Americans with disabilities within federal land management agencies is deeply rooted and hidden in plain sight. Recreation, primarily motorized recreation, has taken a backseat to conservation and protection. Motorized recreation is often the only way those with mobility impairment disabilities are able to access public lands. BLM should ensure that the plan complies with the Department of Interior's Equity Action Plan, which recognizes that restrictions on motorized access to public land create barriers of access to those with disabilities. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #47-3 | Similarly, Alternative B may not be sufficient in limiting future OHV uses that burn fossil fuels. I think that there should be more areas closed to future OHV use, especially in habitats for sensitive species. | OHV area designations have been analyzed in the DRMP and can be seen in Maps 2-25, 2-26, 2-27, and 2-28. Also see Management Actions 660-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #242-1 | “Within the area designated as limited to designated roads and trails, 2,352 miles of routes would be managed as open to vehicle use. … About 67 miles of routes would be limited to non-motorized or non-mechanized use, 4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed from the transportation network and returned to natural conditions. These routes would receive lower use or no use at all.” | See updates to Chapter 4.17 removing erroneous text on route designations. |

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| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #247-1 | In 2011 I suffered a spinal cord injury & am considered disabled. My once capable body that used to carry me over mountains is only a fraction of what it was. I am however able to walk small distances & drive. With the ability to drive, I've taken up the hobby of UTVing. I love that I can drive my buggy around the county with almost limitless access (within reason). | OHV area designations have been analyzed in the DRMP and can be seen in Maps 2-25, 2-26, 2-27, and 2-28. Also see Management Actions 660-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #258-4 | Removing 10,600 mile of roads with a stroke of the pen and closing 4,500 miles the same way is probably illegal according to RS 2477 especially those roads that can be proven to be there before 1976. | See updates to Chapter 4.17 removing erroneous text on route designations. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #302-2 | We also have great concern as to how Alternative B will impact motorized recreation and hunting access in the in the Rock Springs management area. You have now acknowledged that the draft land use plan contains an error as to how many miles of roads will be closed under the proposed plan (the document currently states 4,505 miles of existing roadway will be closed). People from Wyoming and throughout the country have enjoyed motorized recreation in the Rock Springs resource management area for generations. With motorized travel restrictions already in place on many federal lands, we would hope that BLM would realize the benefits of promoting reasonable and responsible motorized recreation. Without a clear understanding of the impact of the proposed plan on recreation, the plan should be abandoned and a new plan developed or one of the other preferred alternatives adopted. | See updates to Chapter 4.17 removing erroneous text on route designations. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #396-1 | This plan is in direct conflict with West Virginia V. EPA 597 U.S_(2022) Marbury V. Madison. SV.S. 137_(1803) Taylor Grazing Act - 1934 The Supreme Court help that WE THE PEOPLE have the Right the FREE TRAVEL These Closures are not constitutional and shall not be followed!! All Attempts to enforce closures by the BLM are unlawful and will not be accepted to be lawful requests. | See updates to Chapter 4.17 removing erroneous text on route designations. Management Actions by alternative for OHVs have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #550-9 | The BLM also proposes to severely limit recreational access for off-highway vehicles (OHVs) throughout the planning area. In the existing plan, OHVs are limited to designated roads and trails on only about one million acres, but Alternative B would limit OHVs to designated roads and trails on 3.3 million acres (91% of the 3.7 million acres of BLM surface). BLM indicates that the same number of acres would remain closed to OHVs under Alternative B as the existing RMP (255,000 acres, at ES-6), but that does not appear to be the case. In fact, BLM seems to underestimate the closed acreage given that Alternative B would newly "prohibit motor vehicle use on public lands" in some ACECs, most notably the Salt Wells portion of the Greater Red Creek ACEC (249,326 acres), which currently allows for OHV use on designated trails. | See updates to Chapter 4.17 removing erroneous text on route designations. Management Actions by alternative for OHVs have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #7447-1 | The draft RMP does not address redundant or illegal two tracks where resource damage has occurred. I wish it did. We should return this land to wildlife habitat or grazing. There are too many unneeded roads here. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-2 | These areas have a historical use and closing them is shutting the local communities off from their history. The environmental impact of the current transportation network is mitigated by the small number of current routes and open OHV areas. | Management Actions by alternative for OHVs have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-3 | The U.S. Bureau of Economic Analysis showed that in 2021 the outdoor recreation industry brought in $821 billion nationwide. By limiting access to the monument or decommissioning trails the BLM could be harming the local economy and robbing them of potential income. | An Economic Impact Comparison Analysis is available in Appendix O of Volume 2 of the DEIS. See Table O.1-1 for impact to recreational economic inputs by alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-4 | The agency should adequately consider the 2008 Off-Highway Vehicle Recreation in the United States and its Regions and States report found the 18.62% of the U.S. population over 16 years of age or about 50,000,000 (current estimate) enjoy OHV recreation Cordell, H.K., C.J. Betz, G.T. Green, and B. Stephens. 2008. "Off-Highway Vehicle Recreation in the United States and its Regions and States: An update National Report from the National survey on Recreation and the Environment (NSRE)." | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-5 | The agency should adequately review recent aerial photographs of the project area and ride the area on an OHV with all types of OHVs and skill levels to determine the routes that the public currently uses and needs in the project area. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |

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| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-6 | The agency should adequately consider that access to motorized trails is the most frequently cited issue by OHV recreationists. (https://bber.umt.edu/pubs/survey/MontanaOHVStudy2013.pdf). | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-7 | 22. The agency should adequately consider that the public has effectively lost the use of a significant number of trails and routes each year due to inadequate maintenance including vegetation and timber projects, erosion and flood damage, blockage from beetle kill downfall, and obliteration of the trail tread and downfall from wildfires. a. The cumulative effect of this continual loss has become significant and should be addressed and mitigated. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-8 | The agency should adequately consider the economic loss associated with the loss of motorized access and motorized recreation as demonstrated in the following report https://extension.usu.edu/apec/files/OHVeconomicimpacts.pdf | An Economic Impact Comparison Analysis is available in Appendix O of Volume 2 of the DEIS. See Table O.1-1 for impact to recreational economic inputs by alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-9 | Attractive recreational trails improve the quality of life in all regions, and this has been used as an important recruiting tool by local businesses, chambers of commerce and public agencies, which target people with special skills or talents, and encourage new and expanding businesses. https://headwaterseconomics.org/wp-content/uploads/Trail_Study_4-trail-use-in-minnesota.pdf | An Economic Impact Comparison Analysis is available in Appendix O of Volume 2 of the DEIS. See Table O.1-1 for impact to recreational economic inputs by alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-11 | The agency should adequately develop and consider site-specific data that demonstrates any impact of significance to the natural environment by motorized recreation and dispersed camping when compared to naturally occurring levels of impact and change. 16. The agency should adequately develop and consider site-specific data that demonstrates that closures of motorized and dispersed camping opportunities produce any significant benefit to the natural environment. 17. The agency should adequately develop and consider site-specific data that demonstrates significant measurable impacts (compared to naturally occurring) from motorized recreation and dispersed camping. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #8761-16 | The agency should adequately consider that motorized recreationists have been hammered by motorized closure after motorized closure in Wyoming and surrounding states.3 7. The agency should adequately consider that travel planning and other planning actions have closed 25 to 75% of the historic motorized routes and all cross-country opportunities since the 1960's. 8. The agency should adequately consider that the analysis should adequately disclose and evaluate the amount of motorized access and motorized recreation that has been lost to public use since the 1960's. 9. The agency should adequately consider and mitigate the significant negative cumulative effect of all motorized closures on the public. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #9354-1 | 1501 Alternative B says Allow motorized Travel only for access to State/private land. This is BLM land, people need to be able to acess it for hunting, range management. This land that is BLM is for everyone to use, even if it is for Ranching, or recreation. | MA 1501 is specific to Lands With Wilderness Characteristics under Alt B. Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #9354-6 | 4427 Alternative B-seasonally close vehicular travel in crucial and important wildlife habitats. This will restrict access to private, and state grounds as well as forest permitted ground. | See range of alternatives analyzed for Management Action 4427. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #9665-1 | RMP designates just over 2,300 miles ofroutes for vehicle use, 67 miles ofroutes for non-motorized use, while closing 4,505 miles ofroutes to all use and a further 10,000 miles of routes and other linear disturbances to be removed for any transportation purposes. It has been reported that the route closures included in the RMP were made in error but there has been no information provided by the BLM to explain what the errors were or what should be expected for route closures under the final version of the RMP. | See updates to Chapter 4.17 removing erroneous text on route designations. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #10225-3 | In polling our senior patrons we found, that for most of their lives, they have enjoyed traveling the existing backroads, two tracks and trails of Sweetwater County. This enjoyment has been passed on to their children and now their grandchildren. However, now in their later years, the only method of travel is some type of motorized vehicle. If Alternative B is out into place, anyone who is mobility challenged will no longer have the ability to enjoy the beauty of our vast desert resource, It is interesting that the ADA requires city businesses and public places to provide access to all, but none of this seems to appear in any RMP. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources– | #10494-8 | ACCESS The Rock Springs RMP has been shrouded with confusion regarding the extent to which management choices might impact both public access and access for specific purposes including livestock grazing | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management |

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| Off-Highway Vehicles (6600-6620) | | management. It is now our understanding that a separate transportation plan will be developed at a future date. Nevertheless, there are significant restrictions being considered in this RMP, including the Special Designations, that, if adopted, will necessarily lead a future transportation plan toward drastic reductions in current levels of access. Frankly, our industry cannot fully assess the impacts of many of the alternatives in this RMP without concurrently being able to assess the degree to which access will influence our livestock management. | decisions are outside of the scope of this RMP and will be evaluated separately. Livestock Grazing actions can be found in Management Actions 6400-6417. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13064-6 | BLM Wyoming stated that it intends to remove the route closures and the references to the travel management plan from the draft Rock Springs RMP. However, BLM Wyoming did not specifically identify what would remain in the draft Rock Springs RMP and what would be removed. Therefore, the Committee would like to provide comment on the route closures and other negative impacts that Alternative B, as currently drafted, would have on Wyoming's recreation industry. | See updates to Chapter 4.17 removing erroneous text on route designations. Recreation effects are addressed in Chapter 4.17 for all four alternatives. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-18 | 18. Without impacting existing seasonal closures for wildlife, continued use of, and access to, all currently existing roads, trails, and open ride areas based on available mapping and satellite imagery to include OSV and the Continental Divide snowmobile trail. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-19 | 19. Include in-depth public and state agency involvement in any future planning processes that will have an impact on the existing road and trail system routes in order to create and manage a trail system. Utilize partnerships to assist with the management and maintenance expenses of all road and trail systems. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-84 | 6606 Alternative D Close, temporarily on a case-by-case basis, areas where OHV use has caused adverse effects on resources to the type(s) of vehicle causing the effects until the effects are eliminated and measures implemented to prevent recurrence. Alternative D is preferred because it includes more flexible language than Alternative B while ensuring protection of resource values including temporary and case-by-case closures of OHV use when necessary. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-85 | 6607 Alternative A Off-road vehicle use would be managed according to the OHV designations listed on Table 2-11, Appendix V and shown on Map 2- 25-Open: 12,831 acres; Closed: 225,537 acres; Limited to Designated Roads and Trails: 968,959 acres; Limited to Existing Roads and Trails: 2,398,839 acres. Alternative A is preferred because it provides off-road vehicle use on existing roads and trails, which continues to protect public lands and resources while providing opportunities for the safe use and enjoyment of OHVs. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-86 | 6608 Alternative A Areas for ORV rallies, crosscountry races, and outings may be provided on a permit basis. Alternative A is preferred because it maintains important recreational opportunities in the region. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-87 | 6610 Alternative A In areas designated as either "limited" to designated roads and trails or "limited" to existing roads and trails for off-road vehicle use, motorized vehicles must stay on designated or existing roads and trails, unless allowed an exception by the Authorized Officer. This limitation applies to all activities involving motorized vehicles. Except for areas that are closed to off-road vehicle travel, some types of off-road motor vehicle use may be allowed by the Authorized Officer provided resource damage does not occur. Alternative A is preferred because it protects public lands and resources while providing opportunities for the safe use and enjoyment of OHVs. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-88 | 6613 Alternative A Generally, over-the-snow vehicle use is subject to the prescriptions described in this section unless a site-specific analysis determines that exceptions can be allowed. Alternative A is preferred over Alternative D because the snow depth restrictions in Alternative D are too subjective to be effectively implemented (i.e. they don't discuss specific snow conditions - power or packed - just snow depth). | See updated language in Chapter 2.2.6 Management Action 6613 |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13210-89 | 6614 Alternative A The existing open area in the Killpecker Sand Dunes would remain open. Alternative A is preferred because it enables continued OHV use in a very popular recreational area. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Killpecker Sand Dunes Open Play Area remains open under each alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13287-35 | The Bureau should manage the entire RSFO under a "white-arrow" travel management scheme under which vehicle routes are closed unless posted open. No alternative currently does this (DEIS at 2-139, Item 6607). The need for this measure is illustrated by the fact that single-use vehicle tracks traversing unroaded areas are commonly followed by subsequent users, creating new unauthorized routes cross-country where no vehicle route existed before. Subsequent users, though limited to "exiting" vehicle roads and trails, can legitimately claim that their use of illegally-created vehicle ways becomes legal as soon as the illegal tracks can be seen to exist on the | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |

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| | | ground. Off-road vehicle rallies (DEIS at 2-140) should not be permitted on BLM lands off graded, improved gravel roads; these should take place on private lands, because the level of resource damage they create is incompatible with requirements to protect resources on public land. | |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13409-1 | Alternative B would greatly affect RECREATION routes in southwestern Wyoming. Under Alternative B, "2,352 miles of routes would be managed as open to vehicle use and 67 miles of routes would be limited to non-motorized or non-mechanized use." Most significantly, "4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed from the transportation network and allowed to return to natural conditions." The draft Rock Springs RMP does not define "natural conditions," so it is unclear how long these roads could be removed from the transportation network. I am deeply concerned that these route closures would reduce public access to public lands. Under Alternative B, only 13.9% of existing roads and trails would remain open to vehicle use. The draft Rock Springs RMP also does not provide a map to show the specific routes that would be closed. The effect of these route closures may be even more significant and detrimental depending on where these closures actually are. Without a map, I cannot accurately articulate the overall impact the route closures would have on recreation. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13511-1 | Taking this many miles out of use will probably not accomplish as much protection to cultural resources or other resources as one would hope because people who use these vehicles often opening defy road closures when they become too restrictive. Because there will be no daily supervision of people using this form of transportation, it is easy for them to drive on roads that have been decommissioned but are still visible or still on old maps. Our experience has been that it would be more productive to have more open roads/trails, especially if they are planned routes laid out to avoid known /significant cultural resources. This certainly will not provide complete protection to cultural resources, but it is a better alternative than just closing off roads without offering other places for those people to ride as the number of OHV users is increasing every year. By planning OHV routes, the areas would be subject to archaeological surveys prior to opening them, which would afford better information to the route planners and better protection to cultural resources as well as other resources of concern. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13527-2 | OHVs should be restricted to routes already designated for their use and should be barred from WSAs and from LWCs. No "free play" areas for ORVs should be designated, as they destroy wildlife habitat and leave scars on the landscape. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13527-3 | The final plan should establish a process for reviewing existing OHV routes and identifying those that are creating impacts against bird and wildlife habitat. Any such routes should be closed and rehabilitated to restore the damaged habitat. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13564-4 | These restrictions on public access in Alternative B are due to the protection of special status plant species and sensitive resources. This is because closures could be implemented during high-risk times for plants, wildlife, and other resources. Over time, these restrictions could overlap for periods extending beyond several months. An option that would prevent this would be to have designated roads and trails, as well as managing closures on a case-by-case basis for the protection of species. Shutting off motorized access to significant portions of public lands hurts the entire surrounding community. Public lands provide open space for people from the surrounding area and beyond to recreate outdoors for free. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13585-43 | The Proposed RMP and DEIS fails to consider a reasonable range of alternatives for OHV area designations. Under the current Green River RMP, the OHV designations are as follows: 12,831 acres open; 225,537 acres closed; 968,959 acres limited to designated roads and trails; and 2,398,839 acres limited to existing roads and trails. DEIS at 2-139 (Mgmt. Action #6607). All the other alternatives propose the same OHV designations: 12,831 acres open; 225,537 acres closed; and 3,367,576 acres limited to designated roads and trails. Id. There is no difference in the alternatives, let alone a "reasonable range" of alternatives in this DEIS. See Or. Natural Desert Ass'n, 625 F.3d at 1123-24 (Off-road vehicle analysis was flawed for failing to consider "no alternative that proposed closing more than a fraction of the planning area to ORV use."); see also Ctr.for Biological Diversity v. Bureau of Land Mgmt., 746 F. Supp. 2d 1055, 1088-89 (N.D. Cal. 2009) ("All alternatives were based on the same OHV route network, and thus do not provide a truly meaningful range of alternatives."). "Sweetwater County supports outdoor recreation on federal land as part of a balanced plan of economic growth and quality of life," including OHV travel. Sweetwater County's Federal Lands and Resources Plan at Sections 19.2.l and 19.2.2 (June 2022). Under all alternatives, the BLM severely limits areas open for OHV travel and provides no opportunity for growth in the County. Preferred Alternative B also prohibits OHV rallies, cross country races, and other organized events that have a long history of occurring in Sweetwater County and across BLM's lands. See DEIS at 2-140 (Mgmt. Action #6608). The County does not support any management action that would prevent these types of events from occurring since they provide substantial economic benefits to the County and local communities.The BLM must work collaboratively with cooperating agencies to develop a reasonable range of alternatives for OHV | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. The range of alternatives is adequate for designating OHV 'open' areas and further route designations will be made in an implementation level Travel and Transportation plan. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |

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| | | area designations, and either re-issue the DEIS or a supplemental EIS to allow for adequate public commenting on the alternatives. | |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13601-1 | The 'Off- Highway Vehicle (OHV) Area Designations' of the proposed DRMP are not clearly outlined with maps in any alternatives to be able to make a comparison. Without being able to compare the current open areas for OHV use to the proposed changes in Alternative B, C and D there is no clear path to the best suited alternatives. This area of the DRMP seems to be incomplete. Maps of current standings as well as proposed changes should be provided. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13651-52 | The BLM preference for and encouragement of dispersed and casual recreational use of the Field Office jurisdiction creates more widespread impacts which are harder to monitor and mitigate. It presumes visitors and recreationists will be good stewards who will try to minimize their impacts and who will leave no trace. This assumption requires monitoring and mitigation measures if not met. A passive assumption that off-highway vehicle users and other visitors will do the right thing (pg. 4-184) is not good management when there is no verification. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13675-1 | Closing off miles of roads & trails that have been in use for decades, or longer, will not prevent usage and will increase the impact of usage elsewhere, increasing human concentration and negative impact. | Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13706-2 | 3. Tourism Industry Impact: Reduced access to public lands could lead to a decline in tourism-related revenue, impacting the local economy. Energy Infrastructure and Rural Development Concerns: | An Economic Impact Comparison Analysis is available in Appendix O of Volume 2 of the DEIS. See Table O.1-1 for impact to recreational economic inputs by alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13721-3 | According to this paragraph buried deep within the DEIS, there are currently 16,930 miles of existing roads and trails located on RSFO BLM lands. Under Alternative B, only 2,352 miles of existing roads and trails (13.9%) would remain open to vehicle use. That's unacceptable. Another 67 miles (0.4%) would be converted to only nonmotorized or non-mechanized use. Motorized use in these areas is quite low and all users can easily share the use of these low-volume routes without conflict, making these changes unwarranted. Worst of all, the remaining balance (85.7%) of existing roads and trails would be either closed to all use or removed and returned to natural conditions. This is totally unacceptable since these access routes are needed for a wide variety of uses including recreation, livestock management, general transportation and other uses related to oil, gas and minerals commerce. The WSTP is firmly opposed to your proposed closure of these existing roads and trails. | See updates to Chapter 4.17 removing erroneous text on route designations. Management Actions by alternative for OHV use have been analyzed in Chapter 2.2.6, Section Land Resources - Off-Highway Vehicles, Management Actions 6600-6620. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13721-4 | Other than in the controversial paragraph referenced above, the Draft RMP/EIS fails to provide any detailed information (tables and maps) showing exactly how many miles of existing roads and trails are "Under Alternative B, route designations from the travel management plan would be applied. Within the area designated as limited to designated roads and trails, 2,352 miles of routes would be managed as open to vehicle use. About 67 miles of routes would be limited to non-motorized or non-mechanized use, 4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed from the transportation network and allowed to return to natural conditions. These routes would receive lower use or no use at all. Reducing the number of routes could reduce the availability of motorized recreation but could provide solitude and naturalness to visitors seeking a pristine experience." Volume 1, page 4-191 within these existing acres, nor does it provide a map or table that shows where and how many miles of roads and trails that now exist on the ground that will actually end up as designated roads and trails. | See updates to Chapter 4.17 removing erroneous text on route designations. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13721-5 | While it appears that all acres currently attributed to Existing roads and trails are proposed to be moved to the Designated category, there should be clarification added to the Final EIS which quantifies the miles involved in such an action. Also, there is a very limited definitions provided as to what 'Designated' really means or how that label is determined. BLM staff have said that "designated" means "something they will put a blade to" - which seems rather unreasoned and irrational since travel routes are needed for a wide variety of uses - including many that do not require regular maintenance with a road grader. We disagree with abandoning the Existing categorization - so if the term Designated is used to replace it in the future, a much better definition than 'something we'll put a blade to' needs to be provided since all future 'designated' roads and trails needed to provide acceptable public access to the RSFO certainly would not require regular road blading. | See glossary for definition of 'designated roads and trails', along with other route indicators. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13721-6 | We are aware that Sweetwater County had all roads in the county inventoried about 10 years ago and came up with a total of about 33,500 miles. While all of those routes are not located within the RSFO, it is conceivable that a substantive percentage of those 'roads' are within the RFSO given its huge land mass within the county. Consequently, we believe there needs to be a better accounting of all existing roads and trails within the RSFO before this process moves forward - and reiterate that such accounting should be tallied by miles versus by acres. | Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. |
| 831 - Land Resources– | #13730-1 | The BLM continues to claim that the preferred alternative (B) would not result in a reduction of vehicle access due to road closures. However in Chapter 4 it states that "67 miles of routes would be limited to non-motorized or non- | See updates to Chapter 4.17 removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately |

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| Off-Highway Vehicles (6600-6620) | | mechanized use, 4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed" | |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13776-11 | The inclusion of an inaccurate road-closure map has created confusion and needs clarification on several levels. Closing multiple routes will hamper access for recreation users and other groups as well. Nearly everyone we have consulted with on this plan agrees this requires clarification in a next draft, with serious consideration put into how critical access routes are for managing visitation, use, and therefore resource protection. | Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13784-58 | "Designated OHV areas that are closed to livestock grazing would result in a small loss of forage." (p. 4-177) Comment: Alternative A neglects to identify how many acres are closed to livestock grazing. Are the 970 acres unavailable to livestock grazing different than what this statement indicates? Closure and unavailability to livestock grazing are two different management actions. | Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Appendix U in Volume 2 of the DEIS shows a comparative summary of impacts to livestock grazing, broken up by alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13826-28 | My concern is that the residents, agriculture, mining industries, recreation industry and private citizens, as well as those concerned with the historical and geological history of the Rock Springs BLM-RMP have the ability to have access to and use these off-road travel areas and ROWs within the BLM area for the needs of that specific situation. As a minimum allow these roads to be used through a permit system. | Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13826-29 | I am not against restrictions to protect the habitat and environment of these areas where the need is established but I believe that a compromise can be established to meet most of the needs of all parties involved. I have reviewed the actual plan and have located information about the 'ROWs' and 'Off Road Use' issues and some of these seem to be suggested for mostly the mineral, utility and industrial uses. I found it difficult to locate how the ROWs and road closures will affect agriculture, especially how it will affect local Ranchers and Farmers of the included areas as well recreational and personal use by residents for non-industrial use such as recreational (hunting, fishing, rock hunting, camping etc.) or for the local residents who just want to take a drive to view wildlife, scenery or family visits to areas related to my family history. | See Glossary for the definition of 'right of way grant' and 'casual use'. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13826-31 | How does this connect to your BLM alter B plan? I have no idea because of the lack of information given in the Alternative B plan about 'Off Road Closures' and accessing 'ROWs'. As it has been written or presented it is not clear if we will have access to this property by way of the 'ROWs' or the 'Off Road Use' changes. At one point in time the plan suggested that thousands of miles of roads within the Rock Springs district would be closed but no specific information was given as to what roads would be closed. Now BLM states this is not covered in this plan but will be dealt with at another point in time. The only information about uses of the roads that cross over BLM property or the 'Checkerboard' in this area that I can find is related to the 'ROW' maps that I previous included in these comments. | See Glossary for the definition of 'right of way grant' and 'casual use'. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13826-32 | The plan as written is not complete and it is not clearly stated as to how this will impact my desired use of these roadways. I also could not clearly understand the difference between 'ROW Exclusion' and 'ROW Avoidance' in areas or why these would apply to the areas where my grandfather's homestead is located as well as the areas surrounding the ghost town of Bryan, Wyoming where my grandfather worked on the railroad as a pumper for the UPRR. These are areas I want to visit and contribute historical and family history to the local historical societies and museums. I therefore want access to these areas as well. I think I have located the area where his accident occurred. Again, I am not sure I can go to and explore these locations and I couldn't find information within the plan to help me determine if I could have access to these locations. Mr. Dudley Gardner was interested in working with me on some of this family history since very little is known about the early history of the Blacks Fork River and Bryan, Wyoming areas.I am experiencing confusion about the terms ROW exclusion & closure | See Glossary for definitions of Avoidance and Exclusion terms used for the plan. Additionally see definition of 'casual use'. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13826-33 | Also, are these roads closed to just the oil and gas industries or will they impact the trona, agriculture and recreational industries as well as the private citizen and resident who just wants to go for a drive? Recently, I received a copy of the 'The Wyoming Legislature's Joint Travel, Recreation, Wildlife and Cultural Resources Interim Committee' comments submitted to BLM concerning what they considered the negative impacts the RMP will have on Wyoming. In that document the committee noted that the favored RMP - Alternative Plan B. "… while closing 4,505 miles of routes to all use and a further 10,000 miles of routes and other linear disturbances to be removed for any transportation purposes." They also noted in their comments that, "It has been reported that the route closures included in the RMP were made in error but there has been no information provided by the BLM to explain what the errors were or what should be expected for route closures under the final version of the RMP." I also received a copy of the comments submitted by the 'Select Committee on Federal Natural Resource Management (Committee) of the Wyoming Legislature' on the (BLM) draft Rock Springs Resource Management Plan (RMP) and Environmental Impact Statement. This committee stated that they had previously heard testimony that the road closures were part of a separate travel management plan and had not been intended to be included in the Alternative B draft. The committee's comments suggests that they were also told that BLM intended to remove the route closures and the references to a travel management plan from the draft Rock Springs RMP. The | See updates to Chapter 4.17 removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. Additionally see Glossary for a definition of 'casual use'. |

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| | | committee's comment did say that, "However, BLM Wyoming did not specifically identify what would remain in the draft Rock Springs RMP and what would be removed." They then implied that they would include their concerns about possible road closures in the plan in their comments. Now this committee stated in their comments that "… Most significantly, "4,505 miles of routes would be closed to all use, and 10,006 miles of routes and linear disturbances would be removed from the transportation network and allowed to return to natural conditions."1 The draft Rock Springs RMP does not define "natural conditions," so it is unclear how long these roads could be removed from the transportation network. …. Under Alternative B, only 13.9% of existing roads and trails would remain open to vehicle use. The draft Rock Springs RMP also does not provide a map to show the specific routes that would be closed. The effect of these route closures may be even more significant and detrimental depending on where these closures actually are. Without a map, the Committee cannot accurately articulate the overall impact the route closures would have on recreation." I am asking that you consider allowing access to BLM roads and ROWs on a case-by-case basis instead of designating these areas as non-use or restricted. | |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13880-20 | The first is the significant increase in Areas of Critical Environmental Concern, which can impact the regulations governing OHV use and access. Specifically, Alternative B significantly expands the area within which OHV users are restricted to designated routes. Second, as written, Alternative B will remove some 15,000 miles of roads and OHV roads in unspecified locations. Though the BLM has indicated this was included in error, the impacts of such a scenario would likely be significant. | See updates to Chapter 4.17 removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. Additionally see Glossary for a definition of 'casual use'. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13895-2 | Finally, as a private landowner and lessee of other private lands in the area, there is serious concerns about how Preferred Alternative B impacts the ability to access and otherwise use and develop private and state lands due to the massive number of restrictions placed on neighboring public lands. The impact of ROW exclusion areas and restricting motorized travel to designated roads will have on grazing, and other multiple uses, is also not adequately addressed in the DEIS due to the BLM's failure to disclose the connected and foreseeable actions of future travel management planning and foreseeable road closures. Under Preferred Alternative B, the BLM is no longer managing for multiple use and sustained yield but instead closing-off public lands and unlawfully restricting access to state and private lands at the expense and to the detriment of providing healthy rangeland, forest systems, and watersheds. | See updates to Chapter 4.17 removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. Additionally see Glossary for a definition of 'casual use'. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13899-100 | It is imperative BLM use an accurate route inventory to identify existing routes that are creating resource conflicts and/or are duplicative and to carefully apply the minimization criteria - as well as any relevant RMP direction - to designate which routes are open to motorized travel and ensure that others are closed and rehabilitated. Until travel planning can occur, we urge BLM to restrict motorized travel to existing routes only. | See updates to Chapter 4.17 removing erroneous text on route designations. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. Additionally see Glossary for a definition of 'casual use'. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13911-15 | But even if travel management planning occurs later, the BLM is still required to "document [within the RMP] the decision-making process used to develop the initial network; provide[] the basis for future management decisions; and set[] guidelines for making transportation network adjustments throughout the life of the plan." BLM Handbook 8242 at p. 17 (Mar. 16, 2012). This includes assessing the current ground transportation linear feature database during the pre-planning stage and producing a "map of the known and existing network of transportation linear features, includes modes of travel." Id. at 9, 17; BLM Manual 1626, Section 3.5 (Sept. 27, 2016). The Coalition and Sweetwater County provided the BLM with information on the linear network of roads within the County and Rock Springs Field Office, as well as commented on various travel zoning maps provided by the BLM. The BLM's failure to provide this information in the DEIS is entirely unsupported. The BLM must provide maps of the existing transportation network with the DEIS and allow for the public and cooperating agencies to comment on off-highway vehicle ("OHV") area designations considering the existing network. In the DEIS's current state, it is impossible to determine the effect of the proposed OHV area designations where there is no baseline date provided or mapping of even the known existing roads, routes, and other linear features. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13925-2 | The draft RMP and DEIS fail to address the major scoping issue of travel and transportation management. The BLM decision to omit travel data developed by Sweetwater County does not conform to BLM planning guidance, H-1600-1, App. C at 17-20, and violates rights of access found in federal law. 16 U.S.C. § 3210(a); 43 U.S.C. § 315h; 43 U.S.C. § 1701 n. § 701(h). Many of the management actions attached to Alternative B directly conflict with roads and access rights, thus calling into question to merit of adopting an RMP that effects a taking of these rights in violation of federal law. | Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. See Chapter 1.4 'Planning Criteria' for compliance with applicable laws. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13955-3 | Historically, there has been no group more greatly marginalized and excluded by public land management policies, and motorized travel management policies in particular, than people with disabilities. Outdoor enthusiasts with ambulatory disabilities frequently rely on motorized travel as their sole means to enjoy recreating on public lands. Not everyone has the ability to hike into a remote wilderness area, but many such people are still able to drive Jeeps, side-by-sides, and ATVs, which are restricted to the designated motorized route network. Management policies focused on "minimizing" the environmental impacts of motorized recreation have resulted in a dramatic decrease in motorized recreation opportunities on public lands over the last 20 years, which has disproportionately impacted people with disabilities. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. See Glossary for an updated definition of OHV to address accessibility equipment. |

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| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13955-5 | It should also be acknowledged that it is also entirely possible that many of the tribal members who wish to access sacred and cultural sites within the planning area currently or will at some point suffer from mobility impairment disabilities. Since the elimination of motorized access from the planning area would prevent disabled tribal members from accessing sacred and cultural sites, motorized restrictions would likely be contrary to EO 13007, EO 13985, and the American Indian Religious Freedom Act. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. See Glossary for an updated definition of OHV to address accessibility equipment. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13955-6 | Balancing conservation goals with cultural significance is crucial for the sustainable management of these areas. Managed motorized access can facilitate educational programs, allowing visitors to learn about the significance of the area and the importance of conservation efforts. This educational aspect can foster a deeper understanding and appreciation for the environment, potentially leading to more responsible behaviors among visitors. "ACEC can also provide tangible benefits, such as tourism dollars, for local communities."2 BLM should analyze how many tourism dollars are brought in due to the existing motorized routes that are being proposed for non-motorized trails. | An Economic Impact Comparison Analysis is available in Appendix O of Volume 2 of the DEIS. See Table O.1-1 for impact to recreational economic inputs by alternative. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13955-9 | Current trends show an increase in outdoor recreation the past few years that isn't looking to slow down. With more users on public lands, decommissioning and closing routes from creating more roadless areas, areas of environmental concern or wilderness characteristic areas would be irresponsible as this would concentrate more users into a smaller space which would increase the potential for injury and impact. Wilderness areas have already been studied and established. Closures should not be seen as legitimate almost hardwired responses to issues that can all be managed through other management strategies. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #13974-12 | The inclusion of an inaccurate road-closure map has created confusion and needs clarification on several levels. Closing multiple routes will hamper access for recreation users and other groups as well. Nearly everyone we have consulted with on this plan agrees this requires clarification in a next draft, with serious consideration put into how critical access routes are for managing visitation, use, and therefore resource protection. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. See updates to Chapter 4.17 removing erroneous text on route designations. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #14024-4 | Finally, SCI requests that any final RMP containing additional federal wilderness designations include a carve-out to allow the Wyoming Game and Fish Department motorized access to conduct wildlife management and research activities. The BLM has adopted similar access provisions in other resource management plans. Such carve-outs are needed to protect the State agency's ability to appropriately conserve wildlife resources in remote areas. | See glossary definition for Off-Highway Vehicle (OHV) and note that vehicle travel which has been approved by the authorized officer may be excluded. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #14034-1 | The Draft RMP/EIS does not discuss snowmobile / over-snow-vehicle (OSV) travel other than in a general reference to the Continental Divide Snowmobile Trail. Specifically, it fails to show how many existing acres of BLM lands in the Rock Springs Field Office (RFSO) are classified as open and available for OSV travel under Alternative A, the current condition. Additionally, it fails to disclose how open OSV acreage would change under your proposed Alternatives B, C and D. Consequently, tables that quantify OSV travel availability as well as maps showing exactly where these acres are located should be developed and added to this plan for each final Alternative as this planning process progresses. | See Glossary definitions for' Off-Highway Vehicle' (OHV) and 'Off-Highway Vehicle Management Designations' for clarification on over-the-snow travel. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #14034-2 | Continental Divide Snowmobile Trail (CDSMT SRMA): About seven miles of this long-distance trail are located within the RSFO. While there is a very general description/discussion of this Special Recreation Management Area (SRMA) in Appendix S on page 589 - it is proposed to be eliminated under your Preferred Alternative B. This section of the Draft RMP/EIS generally states that "over the snow vehicle use is limited to areas where snow is a minimum of 8" deep" - but provides no additional information about existing or proposed future OSV management on this trail or elsewhere. Consequently, any other management prescriptions applicable to the Continental Divide Snowmobile Trail and OSVs in general should be disclosed and be included in the final EIS/RMP. | A range of alternative regarding the Snowmobile CDT have been analyzed in Chapter 2.2.6, Special Designations, South Wind River ACEC, as well as Land Resources - Recreation sections. Under Alternative B the SRMA status is lifted, the trail remains. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #14034-3 | While the proposed 'miles of reduction/closure' to motorized vehicle travel is discussed in the Draft RMP/EIS, your document fails to quantify / provide maps and tables showing exactly where these miles of existing motorized roads and trails are located across the RSFO since existing materials only discuss 'acres' open to motorized vehicle travel. This is a serious omission which must be rectified as this planning process continues to move forward. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 831 - Land Resources–Off-Highway Vehicles (6600-6620) | #14039-1 | In April 2022 the Department of Interior released it's Equity Action Plan which addresses the lack of access on public lands. In order to advance equity of access on public land for those with mobility impairment disabilities, it is important to recognize that discrimination towards Americans with disabilities within federal land management agencies is deeply rooted and hidden in plain sight. Recreation, primarily motorized recreation, has taken a backseat to conservation and protection. Motorized recreation is often the only way those with mobility impairment disabilities are able to access public lands. BLM should ensure that the plan complies with the Department of Interior's Equity Action Plan, which recognizes that restrictions on motorized access to public land create barriers of access to those with disabilities. | Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. Accessibility equipment that is credibly assured to be in use in assisting a disability does not fall under the definition of 'OHV'. |
| 832 - Special Designations–Congressionall | #13210-16 | 16. With the exception of the 1850 Cherokee Trail, which is currently being studied by the National Park Service for eligibility as a national historic trail, eligible but not designated trails within the checkerboard should have no rights of way exclusion and retain a one quarter mile protective set back on either side of contributing sections of | A range of alternatives has been analyzed for the management of eligible but not designated trails in Chapter 2.2.6 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| y Designated Trails (7000-7022) | | trails. Those eligible but not designated trails include but are not limited to 1849 Cherokee Trail, Overland Trail, Point of Rocks to South Pass Road, and other expansion era roads and trails. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13210-119 | 7004 Alternative D Designate the National Trail Management Corridor as VRM Class II. Manage existing utility crossings within the National Trail Management Corridors VRM Class III. On contributing segments of NHT or other historic trails within the checkerboard land pattern area, manage the setting to preserve the existing character of the landscape to the extent possible within federally-managed lands. The task force supported Alternative D in acknowledgement that this is essentially the status quo. However, this included an agreement to exclude the KSLA from this management action. Agreement in principle #9 should be referenced regarding National Trail Corridors VRM classifications. | A range of alternatives has been analyzed for the VRM designations on National Historic Trails in Chapter 2.2.6 management action 7004. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13511-2 | Poor Condition: Rather than Alternative B's strict 5 Miles-On Each-Side Protection Corridor, we would recommend a 1/2 Mile-On- Each-Side Protection Corridor. For Major Linear Right-Of-Way Crossings (Large Powerlines, Pipelines, etc.): Near the Main Trail Corridor, we would recommend crossing by large ROWs occur only on disturbed areas around Highway 191 and nearby agricultural-development lands; near the Sublette Cutoff, we would recommend crossing by large ROWs occur only on either disturbed lands around Highway 191 and nearby Big Sandy/Eden Reservoir-development lands, or around the Lincoln/Sweetwater county line road. | A range of alternatives has been analyzed for the management of Congressional Designated trails in Chapter 2.2.6 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13512-8 | MA 7017 (Overland Trail) Alternative A or Alternative D with the addition of the Overland Trail Alternative A and D both adhere to the multiple-use mandate under FLPMA. If Alterative D is adopted, it should be revised to include the Overland Trail, so the historic context is carried forward. | MA#7000-7022 (Special Designations – Congressionally Designated Trails) discuss the full range of alternatives considered in the EIS. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13542-49 | Table 2-1. Special Designations (SD) - Congressionally Designated Trails 2-142 BLM is violating its own guidance when it seeks to establish rights-of-way restrictions for trails and attempting to regulate uses surrounding trails not yet designated by Congress in ways that contradict Section 7(a)(2) of the National Trail Systems Act. Please revise so that the RMP is in line with the referenced legislation. | A range of alternatives has been analyzed for the management of Congressional Designated trails in Chapter 2.2.6 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13542-59 | 4.4.3 Alternative B. 4-25 There is already current mineral leasing within a 5-mile area of National Historic Trails in the KSLA. This should be revised so that mineral leasing is considered on a case-by-case basis that considers historic effects on these trails. In many cases, there is no surface disturbance and subsidence is regularly monitoring. | See Chapter 1.4 Planning Criteria for discussion of valid and existing rights. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13585-63 | b. Management Actions #7002 and #7004 under Preferred Alternative B would apply a VRM Class II objective within 15 miles in all directions of national historic trails, as well as designate lands with a buffer zone of 5 miles on each side of these trails as the trail management corridor (both buffer zones being arbitrary in nature) subject to the following restrictions: closed to mineral leasing, closed to mineral material sales, a withdrawal would be pursued, and designated as ROW exclusion. DEIS at 2-143. Management Action #7006 also states: "highly visible projects and/or projects out of scale with the surrounding environment ... could be authorized within 20 miles of the NHTS only if the project causes no more than a weak contrast (VRM) to the setting of the NHTs." Id. at 2-145 said 20-mile buffer zone is similarly arbitrary. Sweetwater County objects to these expansive restrictions along historic trails considering the National Trails Act only affords protection within ¼ mile of each side a historic trail. 16 U.S.C. § 1244(a)(3); see supra p. 9. The County supports Management Actions #7002 and #7004 for Alternative C, which [d]esignate ¼ mile on either side ofNHT trail segments as VRM Class II objectives" and only limits surface disturbing activities within a ¼ mile of any segment as it is consistent with the National Trails Act and utilized nationwide. DEIS at 2-143 - 2-144. The expansive trail buffers under Preferred Alternative B are also inconsistent with how neighboring BLM Field Offices treat historical trails. For example, for the Normally Pressured Lance Natural Gas Development Project in the Pinedale Field Office, the BLM prohibited surface disturbing activities within ¼ mile of a historic trail unless the disturbance would not be visible from the trail or would occur in an existing visual intrusion. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13585-64 | c. Management Action #7017 under Preferred Alternative B would apply a½ to 5- mile buffer on either side of an intact trail or road segment that is eligible for protection but not congressionally designated, which depending on the distance would restrict development and implement ROW exclusion designation. The County objects to this Management Action for the same reason as noted above, and because these historic trails and road segments have not been formally designated by Congress. | A range of alternatives has been analyzed for eligible but not designated trails in Chapter 2.2.6 management actions 7017 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |

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| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13628-1 | When LFO went through their RMP process, they came up with protection measures that would preserve their portion of this highly significant High Potential Segment. Since this High Potential Segment continues into RSFO and is of the same high quality, it is obvious that the same protections should be given to RSFO's share of the Segment. It also is within several existing and proposed ACEC areas, making it even more worthy of protection. - Designated utility corridors across the Segment should not be allowed; they should instead be limited to existing disturbance around Farson and Highway 191 to avoid damage to the Segment; | A range of alternatives has been analyzed for eligible but not designated trails in Chapter 2.2.6 management actions 7017 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13628-2 | The Primary Route, west of the Green River - 25 total miles long, in RSFO; Location and Condition: - These NHT portions run from the two main crossings of the Green River (near Lombard Ferry) to the boundary of the Rock Springs/Kemmerer Field Offices (near an abandoned (?) mine in the NW corner of T20N R110W). See Map "6". - This was primary route to Fort Bridger, taken by almost all Utah bound emigrants, and probably by a majority of the rest of the emigrants during mid-1800's. - This part of the Primary Route ranges from fair to excellent shape. It has been damaged in spots by a highway, roads, and other development. My Management Recommendations: - An up to 3-miles-wide protection corridor (with viewshed analyses that could reduce the corridor width) around this section of the Primary Route. - Designated utility corridors across the Cutoff should be limited to existing disturbance around Highway 372, to minimize damage to the trails or their intact settings; - Outside of the protection corridor, highly visible projects and/or projects out of scale with the surrounding environment would be authorized only if the project causes no more than a weak visual contrast; | A range of alternatives has been analyzed for eligible but not designated trails in Chapter 2.2.6 management actions 7017 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13628-3 | The Sublette Cutoff - 50 miles long, in RSFO; Location and Condition: - This NHT runs from Parting of the Ways (east of Eden Reservoir) to the Green River (near La Barge). See Maps "9", "10", and "11". - This was a very well-used shortcut, which saved several days of travel over the primary route. Wyoming.gov describes the Cutoff's history this way: "The Cutoff was taken by about a third of the travelers. It was first opened in 1844 and saved about 46 miles." - The Sublette Cutoff is in good to excellent shape for most of its length in the RSFO. It has been damaged only around the Eden and Big Sandy Reservoirs, and around eastern Lincoln County. My Management Recommendations: - An up to 5-miles-wide protection corridor (with viewshed analyses that could reduce the corridor width) around the Cutoff from Parting of the Ways to near Eden Reservoir. The same for the stretch from one mile west of Highway 191 to the east edge of Sec. 8, T26N R109W. Then, because of Very High oil and gas development potential, an up to 3-miles-wide protection corridor (with viewshed analyses that could reduce the corridor width) around the Cutoff from the east edge of Sec. 8 to the Lincoln County line. Finally, because of previous damage from oil and gas exploration, an up to 1/2-mile-wide protection corridor (with viewshed analyses that could reduce the corridor width) around the Cutoff from the Lincoln County line to the Green River,. - Designated utility corridors across the Cutoff should be limited to existing disturbance around Eden/Big Sandy Reservoirs/Highway 191, and the Lincoln/Sweetwater County Line road to minimize damage to the trails or their intact settings; - Outside of the protection corridor, highly visible projects and/or projects out of scale with the surrounding environment would be authorized only if the project causes no more than a weak visual contrast; | A range of alternatives has been analyzed for congressionally designated trails in Chapter 2.2.6 management actions 7000 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13628-4 | The Kinney and Slate Creek Cutoffs - 60 total miles long, in RSFO; Location and Condition: - These NHTs runs from the Big Bend of the Big Sandy River (near Highway 28) to several spots on the Green River (between Fontenelle Dam and Lombard Ferry). See Map "12". - These variants were developed so emigrants could miss a long dry stretch of the Sublette Cutoff but still access it farther west on its way to Idaho. On the ground evidence shows these variants were well used, but little data on their use is available in the historical record. - Some damage has occurred near Highway 28 and near the Green River, but a majority of the Kinney and Slate Creek Cutoff variants are in good to excellent shape. My Management Recommendations: - An up to 5-miles-wide protection corridor (with viewshed analyses that could reduce the corridor width) around the Cutoffs is recommended for T24N R109W and T23N R108W,109W, and 100W, due to Sage Grouse Key Habitat and Very Low or Low Potential for oil and gas development. For T24N R110W and R111W, due to High or Moderate oil and gas development potential, an up to 3-miles-wide protection corridor (with viewshed analyses that could reduce the corridor width) is recommended. - Designated utility corridors across the Cutoffs should not be permitted; - Outside of the protection corridor, highly visible projects and/or projects out of scale with the surrounding environment would be authorized only if the project causes no more than a weak visual contrast; | A range of alternatives has been analyzed for congressionally designated trails in Chapter 2.2.6 management actions 7000 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13628-5 | The Seminoe Cutoff - 44 total miles long, in both RSFO and LFO; Location and Condition: - This Segment runs from Warm Springs Creek (east of 6th Crossing, in LFO) to Oregon Slough (near Burnt Ranch/9th Crossing, in RSFO). - This well used shortcut was used by faster moving emigrants who wished to avoid the crowding and disease along the primary route. WyomingHistory.org describes the Cutoff's history this way: "Among the many branches and variants of the Oregon Trail was the 35-mile Seminoe Cutoff, which allowed travelers to avoid the last four crossings of the Sweetwater River as well as the difficult climb over Rocky Ridge." - 14 miles of the 44 mile-long Seminoe Cutoff NHT runs through the RSFO, and it has the same qualities as in the LFO. See Map "13". - The Seminoe Cutoff is in good to excellent shape for almost all of its length in both RSFO and LFO. My Management Recommendations: - When LFO went through their RMP process, they came up with protection measures that would preserve this significant NHT. Since this NHT variant continues into RSFO and is of the same high quality, it is obvious that the same protections should be given to RSFO's share of the Segment | A range of alternatives has been analyzed for congressionally designated trails in Chapter 2.2.6 management actions 7000 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |

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| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-2 | Alternative B is the only alternative which approaches what is required to comply with the National Historic Trails Act (NTSA). It develops avoidance/buffers, preserving viewsheds and landscapes, and enables more public involvement and enjoyment. As mentioned in the draft Environmental Impact Statement (EIS) Rock Springs District has more National Historic Trails (NHT) than any other public land unit in Wyoming (please provide information on miles of NHTs in this district compared to other districts to substantiate this statement.) | A range of alternatives has been analyzed for congressionally designated trails in Chapter 2.2.6 management actions 7000 - 7022. Analysis of impacts for actions in each alternatives is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-6 | We hope to see a discussion in detail about how boundary determinations were made for historic trail corridors. The final EIS should reference, discuss and provide copies or links to agreements with the State Historic Preservation Office and the Advisory Council on Historic Preservation as they pertain to district resources. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-30 | Goal SD-02 It is improper to put NRHP Trails that are not designated under the NTSA in this Congressionally designated trails section. The proper place to put them is within the NHPA section. There are entirely different responsibilities under the NHPA (National Register) and the NTSA. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-31 | SD-02: Preserve and protect the historical remains and historical settings, if appropriate, of other trails and roads that are eligible for the NRHP but are not congressionally designated. These roads and trails include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road, and Expansion Era Roads. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-32 | 7100: Develop Management Prescriptions in accord with BLM Manual Policy for NHTs and Technical Manuals. Under NTSA develop prescriptions in conjunction with volunteers and volunteer trails organizations. | A range of 7000-7022 (Special Designations – Congressionally Designated Trails) discuss the full range of alternatives considered in the EIS. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-33 | 7101: Coordination should specify participation of volunteers and volunteer trail organizations per Section 11 (16 USC 1250) of NTSA. | A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-34 | MA 7002 (Page 2-143): The term "trail management corridor" in Alternative B is introduced but there is no place in the document that defines how the five-mile corridor was established as reasonable and appropriate: Designate lands within five miles on each side of the NHTs as the trail management corridor. | See Glossary for definition of corridor. A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-35 | The concept of a trail management corridor is excellent and consistent with BLM responsibilities under the NTSA. By statute on public lands the management of NHTs should depend upon maintenance of the historic character of the trail as a "federal protection corridor." Also under statute, federal land management agencies should encourage nonfederal entities owning lands to consider actions to maintain the historic character for which the National Historic Trails were designated. Definition of the optimal protection corridor should have a basis in an empirical assessment of the character of the landscape of the trail regardless of ownership. We prepared a map that establishes the viewshed of the California NHT associated with the Rock Springs RMP planning area. An assessment such as this should be made of actions that can take place within the trail corridor based on visual and audible elements and short term impacts and irretrievable and irreversible impacts. | A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-36 | For many of the NHTs, an "accordion-type" of boundary may be more appropriate, accommodating significant viewsheds, related structures, geologic features relating to the trail story, and other associated properties, while minimizing corridor width in less important areas. Ideally a national trail may have several distinctly different "boundaries," defining property parcels, related features and views, affected drainages, and access points or buffers. This statement and our map point out that BLM has statutory responsibilities under NTSA that extend beyond public lands in the Field Office boundaries. The plan should consider all of these cumulative and indirect impacts in coordination with private landowners, volunteers and volunteer trail organizations. Measures such as | A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | land exchanges, conservation easements and assistance to landowners to cooperate in conservation of the NHT historic landscape within the planning area will support conservation of the continuous nature of designated NHTs as the NTSA directs. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-37 | MA # 7017 through 7022 (page 2-148 through 2 through 2- 152] These management actions are in the wrong section. There are different rules and responsibilities for trails under the National Historic Preservation Act and trails designated under the NTSA. To merge responsibilities under NHPA and NTSA detracts from the BLM ability to comply with federal directives and indicates a fundamental lack of awareness of independent regulatory responsibilities. This section on "Eligible but not Designated" trails should be moved to cultural resources or better yet renamed simply to "Trails eligible for or included in the NRHP." Then place them in a section along with other categories of archeological resources and historic properties. In this sense trails are no different from other categories of cultural resources (e.g., rock art, bison kills). | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-38 | The government should produce separate maps for each category of resource and present them in a manner that provides information for understanding and analysis of values to include setting. All the management actions deal with surface occupancy protections. Alternatives that may affect integrity of the existing or eligible NRHP characteristics have the same requirement to protect ARPA resource values. The conservation requirement is simple, protect visual and audible impacts to properties included or eligible for the NRHP under ARPA. Complicated variable "buffer zones" between alternatives do not address the requirement. In any case the RMP should cross reference to management actions in other resource programs where there are NSO stipulations (listed in MA #7017 are mineral leasing, new rights-of-way and locatable minerals). | See Chapter 1.4 Planning Criteria for compliance with applicable laws. See Chapter 5.1.2 Coordination and Consistency for discussion of coordination actions with SHPO and other agencies. A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-43 | 3.22.4 Special Designations-National Historic Landmarks (pages 3-30-3-31) This section in its entirety states: The South Pass National Historic Landmark (NHL) was congressionally designated in 1961 to preserve and protect the nationally significant character of the historic landscape that was so important to emigrants (Map 2-29). South Pass made possible the westward migration that began in the 1840s by providing a relatively gentle pass across the mountains, crossing the Continental Divide. The NHTs located within the planning area all pass through and are part of the historic landscape. Several efforts have been made to designate an official NHL boundary. However, these efforts have not been successful. Consequently, through a letter of agreement in February 2006 with the Wyoming State Historic Preservation Office, the NHL boundary has been defined as the same boundary as the South Pass ACEC. This will continue until an official boundary is designated. Please include text to describe how the South Pass NHL and the South Pass Historic Landscape ACEC boundaries were established. Include the February 2006 letter of agreement with the Wyoming SHPO in an appendix or make it publicly accessible by reference to a print or web publication. | The description of the South Pass National Historic Landmark (NHL) in Section 3.22.4 Special Designations-National Historic Landmarks (pages 3-30-3-31) is adequate. See Chapter 3 for discussion of affected environment, and the Analysis of Management Situation on the RMP revision eplanning site. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-44 | In Section 2.2.6 BLM should make a commitment to revise the original 1961 NHL designation. The revision should at a minimum enhance the old narrative for historic significance and establish clear boundaries. Under the NTSA that commitment should include a pledge of concurrent submittal of the revised nomination to the Keeper of the National Register, Wyoming SHPO, interested Tribal Historic Preservation Officers and volunteer Trails Organizations. We suggest that you include timeframes for completion of this task along with estimations of level of effort. | A range of alternatives has been analyzed for the South Pass Historic Landscape in Chapter 2.2.6 management actions 7498 - 7503. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-45 | 3.22.6 Special Designations - National Historic Trails (page 3-31)states: NHTs are congressionally designated parts of the National Trails System, administered by the National Park Service. The planning area contains more linear miles of intact NHTs, NHT candidates, and historical wagon roads than any other field office in Wyoming. The field office contains a high number of historic properties for which setting is a very important attribute including NHT, NHT candidates and sites associated with NHTs. There are four NHTs located within the planning area; they include the Oregon, Mormon-Pioneer, California, and the Pony Express trails (Map 3-7). The Overland and Cherokee Trails are not congressionally designated but are considered candidates for inclusion within the National Trails System. Both are eligible for nomination to the NRHP. See 3.11 Cultural Resources section for more information on Indian Gap and Indian Gap Trail. Who has determined that the Overland and Cherokee Trails are "… candidates for inclusion in the National Trails System?" If they are not designated as part of the National Trails System then it is irrelevant and pre-decisional to state they are candidates for that system. It usurps the role of Congress to designate components of the National Trails System, even if a feasibility study has been authorized, which as far as we know is not the case here. Similarly the statement that the "…field office contains a high number of historic properties for which setting is a very important attribute." We don't deny that setting is very important for both NHTs and all NRHP properties and that these settings require appropriate management but want to emphasize that the provisions for management vary by type of designation. For parallelism, if BLM would list NRHP eligible and listed trails in the special designation section then all NRHP listed and eligible properties need inclusion at the same place. Our point is that the current documents for review provide inadequate consideration of classes of NRHP eligible and listed properties and classes of archeological resources (see our discussion about section 3.11 pages 3-14 to 3-15). | See Chapter 3.22.6 Special Designations - National Historic Trails, as well as the Analysis of Management Situation document on the RMP Revision eplanning site for discussion of existing conditions. See Chapter 1.4 Planning Criteria for compliance with applicable laws. |
| 832 - Special Designations– | #13651-56 | Since NHTs are specially designated by Congress and must be managed in compliance with the NTSA they should have the same buffers, protection, and management practices no matter what the alternative. | A range of alternatives was analyzed for Congressionally designated trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Congressionally Designated Trails (7000-7022) | | | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13651-57 | In addition, the discussion of NHTs focuses on the Oregon and Mormon trails. Other NHTs (California and Pony Express) also pass through the District, often overlapping with the Oregon and Mormon trail routes. They remain unmentioned yet they are visited as recreation and cultural/historic sites. BLM needs to correct this deficiency. | See Chapter 3.22.6 Special Designations - National Historic Trails for a discussion of trails in the planning area. A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13672-4 | The Draft RMP incorrectly applies management actions to trails that are not congressionally designated National Historic Trails (NHT). Management actions #7017-7022 in the Draft RMP incorrectly apply "NHT-like" restrictions to eligible but NOT congressionally designated trails ("non-NHT trails"). Management Actions #7017, #7018, #7019, #7020, #7021, #7022 should be removed altogether because they do not follow current rules, regulations, policy and guidance. Non-NHT trails are adequately covered by Management Actions #5000-5004. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13672-5 | The broad-brush approach of applying standard buffers to all sections of non-NHT trails found in management actions #7017-7022 goes against the Protocol already established between the BLM and Wyoming SHPO for management of cultural resources. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13702-12 | The BLM Rock Springs Field Office needs to reevaluate the boundaries of the Congressionally Designated Trails consistent with guidance. BLM Technical Reference 6280-1 states that "inventory, assessment, and monitoring (IAM) is guided by Bureau of Land Management (BLM) Manual 6280-Management of National Scenic and Historic Trails under Study or Recommended as Suitable for Congressional Designation-and is the responsibility of BLM staff to carry-out." In addition, it states that "IAM results can be used to establish a National Trail Management Corridor." The RMP needs to be revised to use the IAM results to establish a National Trail Management Corridor.Additionally, Section 7(a)(2) of the National Trail System Act (as Amended in 2019) states that "Pursuant to section 5(a), the appropriate Secretary shall select the rights-of-way for national scenic and national historic trails and shall publish notice thereof of the availability of appropriate maps or descriptions in the Federal Register; Provided, That in selecting the rights-of-way full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for the specific area in order to insure continued maximum benefits from the land. The location and width of such rights-of-way across Federal lands under the jurisdiction of another Federal agency shall be by agreement between the head of that agency and the appropriate Secretary. In selecting rights-of-way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned." In accordance with this, the RSFO needs to obtain the advice and assistance of the State, local governments, private organizations, and landowners and land users concerned when establishing the alternative rights-of-way for the national scenic and national historic trails. | See Chapter 1.4 Planning Criteria for compliance with applicable laws and regulations. A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13715-12 | MA #7002-7003 (National Historic and Scenic Trails). Alternative B creates a 10 mile wide trail management corridor (5 miles per side) of right-of-way exclusion areas in the general area where the boundaries of Sublette, Lincoln, and Sweetwater counties converge, on the northwest portion of the RFSO, with an additional ROW avoidance area from mile 5 to 15. This is an area of significant and dense existing natural gas production, is currently fully-leased for oil & gas, and includes EPP's existing Bird Canyon compressor station. This is an area not deemed worthy of ACEC or other special status in any alternative. As noted in MA #7002 for Alternative D, BLM and Wyoming SHPO have agreed that the setting of the NHT in the western part of the RSFO has been compromised by existing development, justifying a ¼ mile buffer on each side of the NHT, not the 10 mile ROW exclusion zone (and combined 30 mile exclusion and avoidance zone) proposed in Alternative B. As discussed in Comment #4 above, the elimination of future right-of-way access for transportation of natural gas is an impairment of the leasehold rights of existing oil & gas lessees. In this case, where BLM has agreed with SHPO that existing development justifies only a¼ mile buffer, it is arbitrary and capricious to impose a giant exclusion zone (and co1Tesponding future leasing withdrawal) where the area is a developed field, and where the protective measures proposed in each of the other three alternatives are fully adequate to protect the NHT resource | A range of alternatives has been analyzed for buffers on Congressionally Designated Trails in Chapter 2.2.6 management actions 7002-7003. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated | #13715-14 | For National Historic and Scenic Trails within the KSLA, avoid surface disturbing activities within 1/4 mile of any contributing NHT segment if it would be visible from the trail , subject the area beyond 1/4 mile from the NHTs to standard NHPA and BLM/SHPO Protocol measures to avoid, minimize, or mitigate effects to NHTs; allow NHT crossings by rights-of-way in areas where trail ruts have been modified by modem uses, where previous crossings | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Trails (7000-7022) | | exist, or where new corridor crossings would not damage trail remains. The BLM and SHPO have agreed that the setting of the NHT in the KSLA has been compromised by existing development Sec e.g., Management Actions 7002, 7003, 7004, 7017. and 7021 BLM's imposition of a 30-mile-wide corridor is directly contradictory to best evidence and consensus (including its own agreement with Wyoming SHPO). | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-11 | The Overland and Cherokee Trails must be managed correctly Management actions 7017-7022 in the proposed Rock Springs RMP/DEIS incorrectly apply "National Historic Trail (NHT)-like" restrictions to "non-NHT trails". We recommend Management Actions 7017 through 7022 be removed altogether because they do not follow current rules, regulations, policy and guidance. Non-NHT trails are adequately covered by Management Actions 5000-5004. The correct procedure for non-NHTs is to follow the BLM/State Protocol and determine the impact to historical properties (including non-NHTs) on a case-by-case basis if the site can't be avoided, then buffers and other measures are to be determined through consultation. Section 106 of the National Historic Preservation Act (NHPA) recognizes the reality that some projects may unavoidably have conflicts due to siting, location, and/or logistical considerations. In such instances, the applicable rules, guidance, and practice is to minimize the impact and imposition of administrative requirements. The simple "no activity buffers" approach employed in the proposed RMP ignores this guidance. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-12 | The Overland and Cherokee Trails are not congressionally designated but are undergoing a Feasibility Study process by the National Park Service are considered candidates for inclusion within the National Trails System. Because these trails are only candidates for NHT designation, but not yet designated, they are currently considered typical cultural/historic properties (linear features, but non-NHTs) eligible for nomination to the National Register of Historic Places (NRHP). Trails are managed by the BLM per BLM Manual 6280 as follows: "While a trail is undergoing a National Trail Feasibility Study process or when a trail has been recommended as suitable for designation and Congress has not yet acted to designate the trail, the BLM manages the values, characteristics, and settings of the trail in accordance with Federal Land Policy Management Act of 1976, as amended (FLPMA). This policy provides guidance on management during this time, which can vary greatly in duration, before Congress acts." FLPMA requires case-by-case NEPA review for projects, and thus invokes applicable rules such as the NHPA under Section 106 and 36 CFR 800. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-13 | The Overaland and Cherokee Trails as presented in the draft RMP/DEIS have not been located or mapped correctly in the Known Sodium Leasing Area and they do not provide significant cultural value in the KSLA due to their previously impacted condition. The public was not provided ample opportunity to comment on these particular trail sections because the National Park Service (NPS) circumvented NEPA by avoiding public comment opportunity. We specifically request Congress to NOT activate/designate these particular trail sections for these reasons. We present several figures and supporting information below to demonstrate the errors BLM and the NPS has made regarding these particular trail sections. Figure 2. Overview map - RMP/DEIS Cultural Resource Map that shows the 1850 Cherokee and Overland Trail (among others).[...]Within the KSLA the Overland Trail as depicted in the RMP/DEIS is not even in the correct location, so it certainly doesn't meet the NHT1 criteria. The Cherokee Trail in the KSLA similarly does not meet the NHT1 criteria because it has been replaced by an improved dirt road and as such the appearance of the trail is completely absent. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-14 | At the time of this document, to the best of our knowledge, Congress has not yet Activated the Overland or Cherokee Trails. We highly recommend that Congress demand a re-study of the 1850 Cherokee and Overland Trails in the KSLA and reconsider them entirely because they are completely inaccurate as presented in the January 17, 2020 request letter. In the KSLA, these trail locations are inaccurate and/or the trails have been removed by historic activities. BLM can only manage these trails as NHT's in their land planning process after Congress has activated them. The Overland and Cherokee Trails must be removed from the Management Actions 7017- 7021, and they should continue to be managed under Management Actions 5000-5004. | Congressional requests for NHT studies are outside the scope of this EIS and RMP. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-15 | BLM did not consider multiple use as required when establishing National Trail Management Corridors The Draft RMP/DEIS Management Action 7002 proposes a National Trail Management Corridor (NTMC) under Alternative D. Similarly, it establishes an undefined "trail management corridor" under Alternative B. Both suggests a 5 mile buffer as the corridor around National Historic Trails (NHT). Under Alternative B, the term "trail management corridor" is undefined and causes confusion with the NTMC. As such, we suggest the term "trail management corridor" in Alternative B be more clearly defined and explained or removed entirely. | See Chapter 1.4 for the Planning criteria and applicable laws. A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. See Glossary for the definition of 'corridor'. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-16 | Under Alternative B, 7002 calls for a closure to mineral leasing and a withdrawl would be pursued. Under Alternative D, it notes that "The BLM and SHPO have agreed that the setting of the NHT in parts of the Western portion of the RSFO has been compromised by existing development." This particular area is only mentioned in 7002 and is not mapped or mentioned anywhere else in the DEIS. As such, there is no way to understand where this is located. | A range of alternatives has been analyzed for corridors for the Congressionally Designated Trails in Chapter 2.2.6 management actions 7002. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionall | #13751-17 | Futhermore, Management Action 7004 establishes Visual Resource Management (VRM) Classes based on the National Trail Management Corridor established in 7002 Alternative D. Under Alternative B, a VRM Class II is suggested for the NHT and its associated landscape with protection for 15 miles in all directions BLM has ignored | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| y Designated Trails (7000-7022) | | cooperating agency input and has not solicited any input from the local trona industry as an interested party. Establishment of the National Trail Management Corridor (NTMC) has significant impact on the trona industry within the KSLA. The only references to the NTMC in the Draft RMP/DEIS are as follows: Management Actions 7002, 7003, 7004, 7006, 7009, and Map 2-32. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-18 | NTMC is not included in the glossary or any discussion throughout the entire draft RMP/DEIS. With such a substantial impact on interested parties there should be additional background, explanation, documentation of authority, opportunity for mitigation, and futher discussion on the NTMC. In regard to NTMC's, BLM has failed to work with cooperating agencies and interested parties during the land planning process. | The term 'corridor' can be found in the Glossary. See Chapter 1.4 Planning Criteria for discussion of the planning effort. See Chapter 5.1 Consultation and Coordination for discussion of coordination with other agencies, and 5.1.1 for a list of the cooperating agencies that have been involved in the development of this document. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-19 | BLM must refer to the Comprehensive Trail Management and Use Plan in its land use planning decisions. In the draft RMP/DEIS, BLM makes no mention of which Comprehensive Trail Management Plan they are using to make decisions. The BLM can only refer to National Historic Trails that have been Congressionally designated, this includes specific trails and locations. For example, the Comprehensive Management and Use Plan for the Oregon Trail recommended that "eventually a corridor averaging a half mile wide centered along the trail along the full length of each of the seven cross-country segments (318 miles) should be protected from the kinds of use and development which may adversely impact the Oregon Trail." The draft RMP completely ignores the Comprehensive Trail Management Plan by suggesting 5 mile corridors. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-20 | Similarly, Congress has designated particular described routes of the California, Mormon, Pioneer and Pony Express trails. BLM's maps the National Historic Trail routes in Map 3-7 and in their provided electronic shapefiles. However, these routes do not entirely match the Congressionally Designated routes but must. Only then can corridors be discussed surrounding those Congressionally Designated routes. | See Chapter 3.22.6 Special Designations - National Historic Trails for discussion of trails in the planning area. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-21 | Furthermore, BLM has not fully considered the SHPO/BLM approved Class III inventory reports for the area. These reports investigate and document contributing and non-contributing trail sections within the KSLA. Many of the routes and corridors being suggested no longer contribute to the National Register, let alone the value of a National Historic Trail Management Corridor. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-22 | In the checkerboard land ownership portions of the Rock Springs Management area, the large broad-brush ROW exclusion and avoidance areas prescribed in MA#7002 and MA#7003 do not follow the guidance in BLM's own Manual 6280 and could make it impossible for private landowners to exercise their rights for access and development. These broad-brush exclusions and avoidance areas need to be removed and replaced with case-by-case assessments in the checkerboard ownership areas with application ONLY to contributing sections. | See Ch 1.4 for the Planning Criteria, including discussion of BLM's planning efforts and private lands. A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-23 | Lastly, under Management Action 7004 Alternative D, BLM is managing the National Trail Management Corridor as a VRM Class II. In Alternative B, they provide no logic but designate the "trail management corridor" (undefined) as a VRM Class II for 15 miles in all directions. The concept of 5 and 15 miles is being mis-used. BLM should retain the ¼ mile NHT buffer where applicable based only on contributing segments, and then conduct visual resource assessments on a case-by-case basis according to BLM Manual H-8410-1 and 6280-1 rather than applying a 5 to 15 mile visual buffer directly to the entire corridor. | A range of alternatives has been analyzed for VRM classes on Congressionally Designated Trails in Chapter 2.2.6 management actions 7004. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-88 | Congressionally Designated Trails: The BLM Rock Springs Field Office needs to reevaluate the boundaries of the Congressionally Designated Trails consistent with guidance. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-89 | The RMP needs to be revised to use the IAM results to establish a National Trail Management Corridor. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated | #13751-90 | In accordance with this, the RSFO needs to obtain the advice and assistance of the State, local governments, private organizations, and landowners and land users concerned when establishing the alternative rights-of-way for the national scenic and national historic trails. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. See Chapter 5 for information regarding cooperating agencies and consultation. |

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| Trails (7000-7022) | | | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-91 | In the checkerboard land ownership areas of the management area, the large broad brush ROW exclusion and avoidance areas prescribed in MAs 7002 and 7003 could make it impossible for private landowners to exercise their rights for access and development. These broad-brush exclusions and avoidance areas need to be removed and replaced with case-by-case assessment in the checkerboard ownership areas. | See Ch 1.4 for the Planning Criteria, including discussion of BLM's planning efforts and private lands. A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-92 | Eligible but Not Congressionally Designated Trails: Management actions 7017-7022 in the proposed Rock Springs RMP/DEIS incorrectly apply "NHT-like" restrictions to "non-NHT" trails. We recommend Management Actions 7017 through 7022 be removed altogether because they do not follow current rules, regulations, policy and guidance. Non-NHT trails are adequately covered by Management Actions 5000- 5004. The correct procedure for non-NHTs is to follow the BLM/State Protocol and determine the impact to historical properties (including non-NHTs) on a case-by-case basis if the site can't be avoided, then buffers and other measures are to be determined through consultation. Section 106 of the National Historic Preservation Act recognizes the reality that some projects may unavoidably have conflicts due to siting, location, and/or logistical considerations. In such instances, the applicable rules, guidance, and practice is to minimize the impact and imposition of administrative requirements. The simple "no activity buffers" approach employed in the proposed RMP ignores this guidance. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-93 | Section V(D) of the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014, states "A determination of effect is made after avoidance and minimization through standard treatment measures and/or best management practices (BMPs) have been integrated into the project design". It's clear that the effect of a project cannot be established until best management practices have been integrated into an individual project. The broad-brush approach of applying standard buffers to all sections of non-NHT trails found in management actions 7017- 7022 goes against the Protocol already established between the BLM and Wyoming SHPO for management of cultural resources. | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-94 | Further, before implementing any management actions related to the designated, but not historical trails, the BLM must accurately map the trails and then provide an opportunity for public comment. It appears that the BLM has mapped the Overland Trail in the Known Sodium Leasing Area using the USGS Quad maps (GLO mapping). The Quad maps in the KSLA are known to be inaccurate for the location of the Overland Trail. Actual experience with location of the Overland Trail, in consultation with SHPO, has shown its actual location to be several miles away on many of the segments compared to what is shown on the maps provided by the BLM in this resource management plan process. Without an accurate map of location, it is unreasonable to propose and apply any management actions that are not case-by-case. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-96 | Historic trails represent a significant new restriction in the RMP which BLM did not adequately analyze nor collaborate with interested parties. The Overland and Cherokee Trails must be managed correctly according to current rules and regulations. BLM did not consider multiple use as required when establishing National Trail Management Corridors. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-164 | MA #7002#SD-01, HR-11#The area within ¼ mile or the visual horizon (whichever is less) of any contributing trail segment would be an avoidance area for surface disturbing activities. Developments such as roads, pipelines, and power lines may be allowed to cross trails in areas where previous disturbance has occurred and the trail segment has lost the characteristics that contribute to its National Register significance. Crossings may include additional disturbance of trail ruts in the areas where previous disturbances have occurred but the ruts themselves have not been disturbed. Development actions would be analyzed on a case-by-case basis through site- specific analysis to identify mitigation needs and meet management objectives. Industry Position: Acceptable. Reason: Follows current laws and regulations.#Designate lands within 5 miles on each side of the NHTs as the trail management corridor. Subject all actions within 5 miles on each side of the NHTs, except for highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants), to the following restrictions: 1) closed to mineral leasing; 2) closed to mineral material sales; 3) a withdrawal would be pursued; 4) exclusion area for ROWs. Industry position: Not acceptable. Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. Five miles is arbitrary and does not follow the National Trails System Act. Restrictions should not include non-contributing sections. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. BLM admits in alternative D that the Western portion of RFSO has been compromised. The same restrictions for the full RFSO clearly do not take this reality into account. Restricting actions without consulting States, local governments, private organizations, and landowners and land users concerned is unlawful.#Avoid surface disturbing activities within ¼ mile of any contributing NHT segment if it would be visible from the trail. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | Subject the area beyond ¼ mile from the NHTs to standard NHPA and BLM/SHPO Protocol measures to avoid, minimize, or mitigate effects to NHTs. Allow NHT crossings by ROWs in areas where trail ruts have been modified by modern uses, where previous crossings exist, or where new corridor crossings would not damage trail remains. Industry position: Acceptable. Reason: Follows current laws and regulations. This alternative supports trona development in the KSLA while still protecting contributing sections of key trails because it keeps management of trails largely similar to the existing successful trails management in the KSLA where the BLM already acknowledges that the area is compromised by development and thus not good candidate for meeting BLM's objective of "Preserve and Protect the …historical setting". Additionally, this alternative provides for more substantive trails management in areas where there are larger concentrations of contributing segments and the trails reside in less developed areas that provide a potential opportunity to meet BLM's objective of "Preserve and protect the…historical setting.#Designate lands within 5 miles on each side of the NHTs and the Continental Divide National Scenic Trail and Connecting Side Trail as the National Trail Management Corridor. The BLM and SHPO have agreed that the setting of the NHT in parts of the Western portion of the RSFO has been compromised by existing development. In this area, the National Trail Management Corridor will be reduced to ¼ mile on either side of NHT ruts and swales. The area within ¼ mile on either side of a NHT will be closed to Oil Shale. Industry position: Not acceptable. Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. Five miles is arbitrary and does not follow the National Trails System Act. Restrictions should not include non-contributing sections. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. The BLM needs to define the "Western portion of the RSFO" in the RMP.#Alternatives A and C are acceptable. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-165 | MA #7003#SD-01, HR-11#No similar action#Subject all actions within five to 15 miles on each side of the NHTs, except for highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants), to the following restrictions: 1) open to mineral leasing with CSU restrictions, 2) open to mineral material sales with CSU restrictions, 3) open to locatable minerals; 4) is a ROW avoidance area with CSU restrictions. Industry position: Not acceptable. Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. Fifteen miles is arbitrary and does not follow the Nation Trails System Act. Restrictions should not include non-contributing sections. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. Restricting actions without consulting States, local governments, private organizations, and landowners and land users concerned is unlawful.#No similar action Industry position: Acceptable. Reason: See MA #7002#Apply the following actions within the National Trail Management Corridor: * National Trail Management Corridor is a CSU for fluid minerals. * The area within ¼ mile on either side of a NHT will be closed to Oil Shale. * Surface disturbing activities will be prohibited if the project causes more than a weak contrast (VRM) to the setting of the National Historic and Scenic Trails. * Designate as a ROW avoidance area. * Allow new ROWs if it is determined by the AO that impacts associated with the action will not cause an adverse effect to the National Historic and Scenic Trails. * Allow mineral material disposals if it is determined by the AO that impacts associated with the action will not cause an adverse effect to the National Historic and Scenic Trails. * Allow new surface disturbing activities only if they will not cause an adverse effect to the National Historic and Scenic Trails. Industry position: Not acceptable. Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. This alternative does not take into consideration the energy corridors that were designated on federal lands under Section 368 of the Energy Policy Act of 2005. Several of trail segments and proposed avoidance areas lie within the energy corridors and cannot be removed without undergoing NEPA. Restricting actions without consulting States, local governments, private organizations, and landowners and land users concerned is unlawful.#Avoid surface disturbing activities within ¼ mile of any contributing NHT segment if it would be visible from the trail. Subject the area beyond ¼ mile from the NHTs to standard NHPA and BLM/SHPO Protocol measures to avoid, minimize, or mitigate effects to NHTs. Allow NHT crossings by ROWs in areas where trail ruts have been modified by modern uses, where previous crossings exist, or where new corridor crossings would not damage trail remains. Taken from Alternative C of MA #7002 | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-166 | MA #7004#SD-01, HR-11, HR-10#No similar action Industry position: Acceptable.#Designate the NHT and associated landscape as: * VRM Class II objectives within 15 miles in all directions. * VRM Class II objectives for all designated NHT crossings. Industry position: Not acceptable. Reason: The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM classifications.#Designate ¼ mile on either side of NHT trail segments as VRM Class II objectives. Industry position: Not acceptable. Reason: The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM classifications.#Designate the National Trail Management Corridor | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | as VRM Class II. Manage existing utility crossings within the National Trail Management Corridor as VRM Class III. On contributing segments of NHT or other historic trails within the checkerboard land pattern area, manage the setting to preserve the existing character of the landscape to the extent possible within federally-managed lands. Industry position: Not acceptable. Reason: BLM is required to adhere to Section 7(a)(2) of the NHSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs.#Alternative A is acceptable. Otherwise the alternative should include a discussion on how BLM will use Technical Reference 6280, in consultation with SHPO, to inventory, assess, and monitor NHTs on a case-by-case basis when an action is in proximity to an NHT. The results should be used to establish management objectives. MA #7005#SD-01, SD-02#No similar action#On contributing segments of NHT or other historic trails within the checkerboard land pattern area, manage the setting to preserve the existing character of the landscape to the extent possible within federally-managed lands and on non- federal land when activity is part of a federal undertaking (connected action). Industry position: Not Acceptable. Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights.. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. BLM Manual 6280 requires a consideration of "How to minimize adverse impacts, to the extent practicable, on adjacent landowners, users, and operations". "to the extent possible" as proposed in this MA does not minimize adverse impacts on adjacent users. . Rather, replacement of that language with "to the extent practicable and commercially viable" would be in line with 6280 guidance.Further, the RMP planning process should not be used to sanction controls on non-federal lands where such management is not authorized by FLPMA#Same as Alternative B Industry position: Not Acceptable. Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights.. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. BLM Manual 6280 requires a consideration of "How to minimize adverse impacts, to the extent practicable, on adjacent landowners, users, and operations". "to the extent possible" as proposed in this MA does not minimize adverse impacts on adjacent users. Rather, something along the lines of "to the extent practicable and commercially viable". Further, the RMP planning process should not be used to sanction controls on non- federal lands where such management is not authorized by FLPMA#See management action 7004. Industry position: Not acceptable. Reason: BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs.# Alternative B would be acceptable with removal of "to the extent possible" to "to the extent practicable and commercially reasonable" along with removal of the reference to non-federals lands. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-168 | MA #7006#SD-01, HR-11, HR-10#No similar action#Highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) could be authorized within 20 miles of the NHT ony if the project causes no more than a weak contrast (VRM) to the setting of the NHTs Industry position: Not Acceptable Reason: 20 miles is arbitrary. The language is also not clear that this only applies to contributing sections and it should only apply to contributing sections. The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM actions.#Authorize highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) on a case-by-case basis avoiding adverse impacts to the NHTs Industry Position: Acceptable. Case-by- case basis makes the most sense in the Known Sodium Leasing area where much of the area is already compromised by existing development.#Authorize highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) that are outside the National Trail Management Corridor only if the project causes no more than a weak contrast (VRM) as viewed from important corridor related National Historic and Scenic Trails features, contributing trail segments, high potential sites and segments, and other key observation points that contribute to the nature and purpose of the National Trails. Industry position: Not Acceptable Reason: The definition of important features, high potential sites and segments is not clear to allow for reasonable interpretation and planning. The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM actions. NHT specific actions should NOT apply outside of the NHT Management Corridor#Alternative C is acceptable | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-169 | MA #7011#SD-01, HR-11#Historic trails are not available for use as industrial access roads (e.g., oil and gas drilling access roads, or as haul roads for heavy truck traffic). Industry Position: Not Acceptable. Reason: Restrictions have typically been applied to contributing sections, not trails in general.#Contributing segments of NHTs would not be available for use as industrial access roads (e.g., oil and gas drilling access roads, or as haul roads for heavy truck traffic). Prohibit large, heavy vehicles (e.g., geophysical, tour buses, or similar size vehicles) from driving on contributing segments of the NHTs. Industry Position: Not Acceptable. Reason: Does not discuss national scenic trails.#Same as Alternative B Industry Position: Not Acceptable. Reason: Does not discuss national scenic trails#National Scenic Trails and contributing segments of NHTs would not be available for use as industrial access roads (e.g., oil and gas drilling access roads), or as haul roads for heavy truck traffic. Vehicles could cross | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | the trails, provided a site-specific analysis determines that no adverse effects would occur. Industry Position: Acceptable.#Alternative D is acceptable. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-170 | MA #7014#SD-01, HR-11#No similar action Industry Position: Acceptable Reason: Follow current rules, regulations and policy#New audible and atmospheric effects would not exceed current levels existing along NHT corridors. Industry Position: Not Acceptable. Reason: Atmospheric effects are not defined and are arbitrary as noted and must be removed. There are no known/established audible restrictions for trails and the National Trails System Act has no references to audible impacts. If audible impacts are of concern, then impacts from federal actions such as the FAA should be considered. Such impacts are likely greater than industrial impacts. Additionally, there is no outlined method to measure such effects so the restriction can't be evaluated.#Subject projects creating new audible and atmospheric effects to NHTs to measures in the NHPA to avoid, minimize or mitigate those effects. Industry Position: Not Acceptable. Reason: Atmospheric effects are not defined and are arbitrary as noted and must be removed. There are no known/established audible restrictions for trails and the National Trails System Act has no references to audible impacts. If audible impacts are of concern, then impacts from federal actions such as the FAA should be considered. Such impacts are likely greater than industrial impacts. Additionally, there is no outlined method to measure such effects so the restriction can't be evaluated.#Allow actions that introduce new audible and atmospheric levels that exceed current levels in the National Trails Management Corridor only if they do not cause adverse impacts to the congressionally designated trails. Industry Position: Not Acceptable. Reason: Atmospheric effects are not defined and are arbitrary as noted and must be removed. There are no known/established audible restrictions for trails and the National Trails System Act has no references to audible impacts. If audible impacts are of concern, then impacts from federal actions such as the FAA should be considered. Such impacts are likely greater than industrial impacts. Additionally, there is no outlined method to measure such effects so the restriction can't be evaluated.#Alternative A is acceptable. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-171 | MA #7017#SD-02, HR-09#Management of historic roads and trails that are eligible for the NRHP but are not congressionally designated would generally be the same as for designated trails including a ¼-mile protective setback on either side of the trails. These trails may be recommended for listing to the NRHP. These trails include the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road. Industry position: Not acceptable given the reference to "generally the same as for designated trails" as the proposed management actions for designated trails are not acceptable for eligible but not designated trails. Trails not designated as National Historic Trails (non-NHT trails) be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014 rather than applying broad-brush buffer and exclusion areas.#Manage historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails), as follows: Within ½ mile on either side of an intact trail or road segment, unless the proposed project and its associated impacts are not visible from the road or trail, would be: 1) open to mineral leasing with NSO restrictions; 2) closed to mineral material sales; 3) an exclusion area for new right-of- way; 4) pursue withdrawal from mineral location. ½ to two miles on each side of the intact road or trail segment, unless the proposed project and its associated impacts are not visible from the road or trail, would be: 1) open to mineral leasing with NSO restrictions; 2) closed to mineral material sales; 3) an exclusion area for new right-of- way; 4) open to locatable minerals. Two to five miles on each side of the intact road or trail segment, unless the proposed project and its associated impacts are not visible from the road or trail, would be: 1) open to mineral leasing with CSU restrictions; 2) open to mineral material sales with CSU restrictions, 3) open to new right-of-way with CSU restrictions; 4) open to locatable minerals. Deny highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, and power plants) within zero to five miles on each side of intact segments of the road or trail unless the project and its associated impacts are not visible from the road or trail. Should any roads or trails be congressionally designated as part of the NHT system, they would be managed according to the prescriptions set forth in the National Historic Trails section. Various Expansion Era (i.e., 1870 to 1940) roads would be managed according to their historical context. Era Roads are those routes developed after the establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the Oregon/Mormon Pioneer National Historic Trails Management Plan would be applies,#Manage, on a case-by-case basis based on their resource values, historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails). Provided such actions do not occur directly on the historic road, actions along the intact road or trail segments would be: * Open to mineral leasing with standard lease stipulations * Open to mineral material sales * Open to new right-of-way * Open to locatable minerals. Manage highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, and power plants) with the following restrictions from zero to five miles on each side of intact segments of the road or trail unless the project and its associated impacts are not visible from the road or trail. Should any roads or trails be congressionally designated as part of the NHT system, they would be managed according to the prescriptions set forth in the National Historic Trails section. Various | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | Expansion Era (i.e., 1870-1940) roads would be managed according to their historical context. Era Roads are those routes developed after establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the Oregon/Mormon Pioneer National Historic Trails Management Plan would be applied, although the ¼-mile protective setback might not always be applied. Management actions would include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments. Activity plans may include NRHP nomination of those Expansion Era trails that qualify. Industry position: Not acceptable. Reason: BLM applies restrictions without conducting an analysis according to guidance. Trails not designated as National Historic Trails (non-NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State#Historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include, but are not limited to the Point of Rocks to South Pass Road and other Expansion Era roads and trails) will be managed according to their historical context and as follows: * Actions within 500 feet of a contributing segment of road or trail: - NSO for fluid minerals - Designate as a ROW avoidance area. For most projects, the setting will be analyzed out to one mile on either side of contributing segments of the historic roads and trails. For highly visible projects, impacts to setting will be analyzed on a case- by-case basis. Should any roads or trails be congressionally designated as part of the NHT system, they would be managed according to the prescriptions set forth in the National Historic Trails section. Industry position: Not acceptable. Recommend the addition of the Overland Trail so the historic context from Alternative is carried forward in the RMP Trails not designated as National Historic Trails (non- NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014 rather than applying broad-brush buffer and exclusion areas.#New Trails not designated as National Historic Trails (non-NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014 rather than applying broad-brush buffer and exclusion areas. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13751-172 | MA #7021 Manage the Overland and Cherokee Trails to preserve the trail values, characteristics, and settings for which the trail was identified for study. Actions within ¼ mile of contributing trail segments: * CSU for fluid minerals * Closed to Oil Shale * Designate as a ROW avoidance area * Petition to segregate and withdraw from locatable mineral entry * Open to solid leasable minerals by subsurface methods only. For most projects, the setting will be considered out to three miles to either side of contributing portions of trail. Allow, on a case-by-case basis, highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) within five miles of the trail only if the project causes no more than a weak contrast (VRM) to the setting of the Overland or Cherokee Trails. Apply the National Historic Trail prescriptions (see National Historic Trails subsection) should any historic road or trail be designated as part of the National Historic Trail System. Industry position: Not acceptable. Reason: This alternative does not take into consideration the energy corridors that were designated on federal lands under Section 368 of the Energy Policy Act of 2005. Several of trail segments and proposed avoidance areas lie within the energy corridors and cannot be removed without undergoing NEPA. Further, the broad-brush ¼ mile ROW avoidance area is not acceptable. Trails not designated as National Historicl Trails (non- NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014 rather than applying broad-brush buffer and exclusion areas. Trails not designated as National Historicl Trails (non-NHT trails) should be managed as cultural resources under MAs 5000- 5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014 rather than applying broad-brush buffer and exclusion areas. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13754-17 | At present, the State Historic Preservation Office works in concert with the BLM to determine the level of mitigation needed to protect the visual integrity of contributing sections of national trails. This process has and will continue to be the best option. There was significant work completed in the Normally Pressured Lance ROD which considered the visual impacts from that development on nearby trails. It is certainly not a conclusion of the NPL ROD that a 30-mile buffer is warranted. | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13775-7 | before implementing any management actions related to the designated, but not historical trails, BLM-WY must accurately map the trails and then provide an opportunity for public comment. The Quad maps used by BLM-WY to map the Overland Trail in the KSLA are known to be inaccurate for the location of the trail. Actual experience with location of the Overland Trail, in consultation with SHPO, has shown its actual location to be several miles away on many of the segments compared to what is shown on the maps provided by BLM-WY in the Draft RMP. Without an accurate map of location, it is unreasonable to propose and apply any management actions that are not case-by-case. | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations– | #13779-15 | preferred alternative increases the VRM buffer distance along the Continental Divide National Scenic Trail, and other National Historic Trails. However, there are already a number of wind energy and solar facilities co-located | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| Congressionally Designated Trails (7000-7022) | | along similar trails with little to no significant impact to the wilderness experience.41The BLM does not explain the need to create such a significant buffer- and again, in doing so it particularly targets renewable energy development as clearly the ability to site wind farms and transmission lines will be most substantially impacted by this buffer. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13783-11 | Under Alternative B, BLM proposes to place a five-mile no oil and gas leasing/right-of- way exclusion buffer on either side of nationally designated trails (national historic trails). Between five and 15 miles of these same trails rights-of-way will be avoided and oil and gas leasing will be permitted only under controlled surface use stipulations. By contrast, current restrictions are limited to case-by-case restrictions and mitigation and avoidance of surface uses within 0.25-mile of designated trails. For trails that are eligible for designation, but not nationally designated, Alternative B would prohibit oil and gas leasing, except under NSO stipulations, within two miles of either side of the trail and exclude rights-of-way. "Highly visible" projects would be denied within 5 miles of eligible trails. When added to the proposed ACECs, these measures represent a massive expansion of the ROW exclusion zones in the planning area, jumping from approximately 430,000 acres to 2.5 million acres and a decrease in areas open to rights-of-way from 2.5 million to 1 million acres. Draft EIS at ES-5 BLM provides little justification for the proposed changes. Indeed, BLM states in the impact analysis that impacts to cultural resources (including trails) "from the management of ROWs would be similar to those described under Alternative A." Draft EIS at 1-146. Indeed, all federal actions in the planning area, regardless of their distance from historic trails, are subject to National Historic Preservation Act Section 106 consultation, including consultation with the State Historic Preservation Office ("SHPO") requiring resolution of adverse effects for undertakings adversely affecting eligible historic properties. That means that under current management, undertakings within the viewshed of these trails are already carefully examined, cautiously permitted, and subject to minimization and mitigation requirements in consultation with the SHPO. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13783-12 | Under BLM's proposed Alternative B, all discretion would be removed from the agency and SHPO to address adverse effects on a site-specific basis, in favor of a blanket restriction on surface uses within 2 miles of the trail and prohibition on "highly visible" uses within five miles of the trail. BLM does not explain why such drastic measures must be taken to protect a trail segment that has not been nationally designated and can be mitigated under current management. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13783-13 | Further, Wexpro specifically objects to BLM's proposed right-of-way exclusion area for the Cherokee Trail cutting a 4-mile-wide swath through the Vermillion Field. The below map shows the proposed ROW exclusion area (red shaded zones) in relation to the existing field. This same map is appended to this letter in full scale for ease of reference and so BLM can expand the file to better view the map key and other details. BLM's heavy-handed proposal would cripple ongoing oil and gas development, which has already been analyzed in the Vermillion Infill Environmental Assessment, by foreclosing off-lease facilities, transmission, and access in this active oil and gas field that has been in production already for 80 years. Specifically, even though Wexpro makes use of a system of existing connecting roads and gathering systems in the area,3 it is not possible to develop new wells without some off-lease rights-of-way. For Wexpro's 40-well development program in 2023, ten new rights-of-way were required for water haul routes, use of an evaporation pond, gathering pipelines, temporary surface water transfer lines, access roads, and well pads. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13783-14 | In many cases, the rights-of-way allow Wexpro to reduce surface impacts and provide operational flexibility. For instance, in 2023, an existing multi-well drilling location within the Alkali Gulch Unit Area was used to develop wells on acreage near, but outside the unit area. If no right-of-way was available, development outside the unit area would have required the construction of a new well pad on the outside acreage, building a road to access the well pad, and the laying of pipeline (water and gas) to the well pad. Rights-of-way often provide the flexibility necessary for operators to reduce surface disturbance and mitigate wildlife and cultural impacts. At the very least, designating much of the Vermillion Field as a right-of-way exclusion zone eliminates the ability to use off-lease infrastructure to minimize disturbance. But even more importantly, disallowing rights-of-way results in the impairment of existing rights by cutting off access to leased acreage. This blatant violation of Wexpro's existing lease rights specifically in the Vermillion Field for alleged protection of the Cherokee Trail is doubly concerning given that both BLM and the SHPO agreed to appropriate mitigation for the Cherokee Trail, which is being implemented as part of the Project. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-25 | Resource: Special Designations (SD) - Congressionally Designated Trails (7000-7022) Overland Trail, Green River to South Pass Trail, Emigrant Trail, and 1850 Cherokee Trail traverse the KSLA. The National Trail Management Corridor is not depicted on Map 2-32 if the area is defined as the "lands within 5 miles on each side of the NHTs and the Continental Divide National Scenic Trail and Connecting Side Trail." | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022 . Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionall | #13787-26 | The Lander RMP follows guidance (BLM Technical Reference 6280) to establish the boundaries of the Congressionally Designated Trails, including the setting of the trails as well as their nature and purpose. The BLM Rock Springs Field Office needs to reevaluate the boundaries of the Congressionally Designated Trails consistent | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| y Designated Trails (7000-7022) | | with guidance. BLM Technical Reference 6280-1 states that "inventory, assessment, and monitoring (IAM) is guided by Bureau of Land Management (BLM) Manual 6280-Management of National Scenic and Historic Trails under Study or Recommended as Suitable for Congressional Designation-and is the responsibility of BLM staff to carry-out." In addition, it states that "IAM results can be used to establish a National Trail Management Corridor." The RMP needs to be revised to use the IAM results to establish a National Trail Management Corridor." In addition, Section 7(a)(2) of the National Trail System Act (as Amended in 2019) states that "Pursuant to section 5(a), the appropriate Secretary shall select the rights-of-way for national scenic and national historic trails and shall publish notice thereof of the availability of appropriate maps or descriptions in the Federal Register; Provided, That in selecting the rights-of-way full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for the specific area in order to insure continued maximum benefits from the land. The location and width of such rights-of-way across Federal lands under the jurisdiction of another Federal agency shall be by agreement between the head of that agency and the appropriate Secretary. In selecting rights-of-way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned." In accordance with this, the RSFO needs to obtain the advice and assistance of the State, local governments, private organizations, and landowners and land users concerned when establishing the alternative rights-of-way for the national scenic and national historic trails. Further, per BLM Manual 1601, Land Use Planning, Section 6(G) "Policy - Valid Existing Rights. All decisions made in land use plans, and subsequent implementation decisions, will be subject to valid existing rights. This includes, but is not limited to, valid existing rights associated with oil and gas leases, mineral leases, mining claims, and lands and realty actions (e.g., rights-of-way, easements, leases, etc.). The BLM has the discretion, subject to the agreement of holders of valid existing rights, to modify proposed actions to reduce the effect of actions on resource values and uses. These modifications may be necessary to maintain the choice of alternatives being considered during land use plan development and implementation, and may include appropriate stipulations, relocations, redesigns, or delay of proposed actions." The RMP needs to be revised to recognize valid existing rights before establishing National Trail Management Corridors. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-28 | MAs #7017-7022 in the proposed Rock Springs RMP/DEIS incorrectly apply "NHT-like" restrictions to eligible but NOT congressionally designated trails ("non-NHT trails"). MAs #7017, #7018, #7019, #7020, #7021, #7022 should be removed altogether because they do not follow current rules, regulations, policy and guidance. Non-NHT trails are adequately covered by MAs #5000-5004. The correct procedure for non-NHTs is to follow the BLM/State Protocol and determine the impact to historical properties (including non-NHTs) on a case-by- case basis if the site can't be avoided, then buffers and other measures are to be determined through consultation. Section 106 of the National Historic Preservation Act recognizes the reality that some projects may unavoidably have conflicts due to siting, location, and/or logistical considerations. In such instances, the applicable rules, guidance, and practice is to minimize the impact and imposition of administrative requirements. The simple "no activity buffers" approach employed in the proposed RMP ignores this guidance | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-29 | Section V(D) of the State Protocol Between BLM and SHPO (Wyoming) signed August 25, 2014, states "A determination of effect is made after avoidance and minimization through standard treatment measures and/or best management practices (BMPs) have been integrated into the project design". It's clear that the effect of a project cannot be established until BMPs have been integrated into an individual project. The broad-brush approach of applying standard buffers to all sections of non-NHT trails found in MAs #7017-7022 goes against the Protocol already established between the BLM and Wyoming SHPO for management of cultural resources. | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-30 | Further, before implementing any management actions related to the designated, but not historical trails, the BLM must accurately map the trails and then provide an opportunity for public comment. It appears that the BLM has mapped the Overland Trail in the Known Sodium Leasing Area using the USGS Quad maps (GLO mapping). The Quad maps in the KSLA are known to be inaccurate for the location of the Overland Trail. Actual experience with location of the Overland Trail, in consultation with SHPO, has shown its actual location to be several miles away on many of the segments compared to what is shown on the maps provided by the BLM in this resource management plan process. Without an accurate map of location, it is unreasonable to propose and apply any management actions that are not case- by-case. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. See Executive Summary, Chapter 4.1 and 4.2 for adequacy of data and analysis. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-82 | MA #7002 SD-01, HR-11 The area within ¼ mile or the visual horizon (whichever is less) of any contributing trail segment would be an avoidance area for surface disturbing activities. Developments such as roads, pipelines, and power lines may be allowed to cross trails in areas where previous disturbance has occurred and the trail segment has lost the characteristics that contribute to its National Register significance. Crossings may include additional disturbance of trail ruts in the areas where previous disturbances have occurred but the ruts themselves have not been disturbed. Development actions would be analyzed on a case-by-case basis through site- specific analysis to identify mitigation needs and meet management objectives. Industry Position: Acceptable Reason: Follows current laws and regulations. Designate lands within 5 miles on each side of the NHTs as the trail management corridor. Subject all actions within 5 miles on each side of the NHTs, except for highly visible projects and/or projects out of | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for surface disturbing activities and Congressionally Designated Trails in Chapter 2.2.6 management action 7002. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants), to the following restrictions: 1) closed to mineral leasing; 2) closed to mineral material sales; 3) a withdrawal would be pursued; 4) exclusion area for ROWs. Industry position: Not acceptable Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. Five miles is arbitrary and does not follow the National Trails System Act. Restrictions should not include non-contributing sections. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. BLM admits in alternative D that the Western portion of RFSO has been compromised. The same restrictions for the full RFSO clearly do not take this reality into account. Restricting actions without consulting States, local governments, private organizations, and landowners and land users concerned is unlawful. Avoid surface disturbing activities within ¼ mile of any contributing NHT segment if it would be visible from the trail. Subject the area beyond ¼ mile from the NHTs to standard NHPA and BLM/SHPO Protocol measures to avoid, minimize, or mitigate effects to NHTs. Allow NHT crossings by ROWs in areas where trail ruts have been modified by modern uses, where previous crossings exist, or where new corridor crossings would not damage trail remains. Industry position: Acceptable Reason: Follows current laws and regulations. This alternative supports trona development in the KSLA while still protecting contributing sections of key trails because it keeps management of trails largely similar to the existing successful trails management in the KSLA where the BLM already acknowledges that the area is compromised by development and thus not good candidate for meeting BLM's objective of "Preserve and Protect the …historical setting". Additionally, this alternative provides for more substantive trails management in areas where there are larger concentrations of contributing segments and the trails reside in less developed areas that provide a potential opportunity to meet BLM's objective of "Preserve and protect the…historical setting. Designate lands within 5 miles on each side of the NHTs and the Continental Divide National Scenic Trail and Connecting Side Trail as the National Trail Management Corridor. The BLM and SHPO have agreed that the setting of the NHT in parts of the Western portion of the RSFO has been compromised by existing development. In this area, the National Trail Management Corridor will be reduced to ¼ mile on either side of NHT ruts and swales. The area within ¼ mile on either side of a NHT will be closed to Oil Shale. Industry position: Not acceptable Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. Five miles is arbitrary and does not follow the National Trails System Act. Restrictions should not include non-contributing sections. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. The BLM needs to define the "Western portion of the RSFO" in the RMP. Alternatives A and C are acceptable. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-83 | MA #7003 SD-01, HR-11 No similar action Subject all actions within five to 15 miles on each side of the NHTs, except for highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants), to the following restrictions: 1) open to mineral leasing with CSU restrictions, 2) open to mineral material sales with CSU restrictions, 3) open to locatable minerals; 4) is a ROW avoidance area with CSU restrictions. Industry position: Not acceptable Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. Fifteen miles is arbitrary and does not follow the Nation Trails System Act. Restrictions should not include non-contributing sections. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. Restricting actions without consulting States, local governments, private organizations, and landowners and land users concerned is unlawful. No similar action Industry position: Acceptable Reason: See MA #7002 Apply the following actions within the National Trail Management Corridor: * National Trail Management Corridor is a CSU for fluid minerals. * The area within ¼ mile on either side of a NHT will be closed to Oil Shale. * Surface disturbing activities will be prohibited if the project causes more than a weak contrast (VRM) to the setting of the National Historic and Scenic Trails. * Designate as a ROW avoidance area. * Allow new ROWs if it is determined by the AO that impacts associated with the action will not cause an adverse effect to the National Historic and Scenic Trails. * Allow mineral material disposals if it is determined by the AO that impacts associated with the action will not cause an adverse effect to the National Historic and Scenic Trails. * Allow new surface disturbing activities only if they will not cause an adverse effect to the National Historic and Scenic Trails. Industry position: Not acceptable Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. This alternative does not take into consideration the energy corridors that were designated on federal lands under Section 368 of the Energy Policy Act of 2005. Several of trail segments and proposed avoidance areas lie within the energy corridors and cannot be removed without undergoing NEPA. Restricting actions without consulting States, local governments, private organizations, and landowners and land users concerned is unlawful. Avoid surface disturbing activities within ¼ mile of any contributing NHT segment if it would be visible from the trail. Subject the area beyond ¼ mile from the NHTs to standard NHPA and BLM/SHPO Protocol measures to avoid, minimize, or mitigate effects to NHTs. Allow NHT crossings by ROWs in areas where | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for restrictions within the corridor for Congressionally Designated Trails in Chapter 2.2.6 management action 7003. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | trail ruts have been modified by modern uses, where previous crossings exist, or where new corridor crossings would not damage trail remains. Language is taken from Alternative C of MA #7002 | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-84 | MA #7004 SD-01, HR-11, HR-10 No similar action Industry position: Acceptable Designate the NHT and associated landscape as: * VRM Class II objectives within 15 miles in all directions. * VRM Class II objectives for all designated NHT crossings. Industry position: Not acceptable Reason: The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM classifications. Designate ¼ mile on either side of NHT trail segments as VRM Class II objectives. Industry position: Not acceptable Reason: The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM classifications. Designate the National Trail Management Corridor as VRM Class II. Manage existing utility crossings within the National Trail Management Corridor as VRM Class III. On contributing segments of NHT or other historic trails within the checkerboard land pattern area, manage the setting to preserve the existing character of the landscape to the extent possible within federally-managed lands. Industry position: Not acceptable Reason: BLM is required to adhere to Section 7(a)(2) of the NHSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. Alternative A is acceptable. Otherwise, the alternative should include a discussion on how BLM will use Technical Reference 6280, in consultation with SHPO, to inventory, assess, and monitor NHTs on a case-by-case basis when an action is in proximity to an NHT. The results should be used to establish management objectives. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for VRM classes and Congressionally Designated Trails in Chapter 2.2.6 management action 7004. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-85 | MA #7005 SD-01, SD-02 No similar action On contributing segments of NHT or other historic trails within the checkerboard land pattern area, manage the setting to preserve the existing character of the landscape to the extent possible within federally-managed lands and on non- federal land when activity is part of a federal undertaking (connected action). Industry position: Not acceptable Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. BLM Manual 6280 requires consideration of "How to minimize adverse impacts, to the extent practicable, on adjacent landowners, users, and operations". "[T]o the extent possible" as proposed in this MA does not minimize adverse impacts on adjacent users. Rather, replacement of that language with "to the extent practicable and commercially viable" would be in line with 6280 guidance. Further, the RMP planning process should not be used to sanction controls on non-federal lands where such management is not authorized by FLPMA. Same as Alternative B Industry position: Not acceptable Reason: Alternative is not in accordance with BLM Land Use Planning Manual 1601, Section 6(G) Valid Existing Rights. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. BLM Manual 6280 requires consideration of "How to minimize adverse impacts, to the extent practicable, on adjacent landowners, users, and operations". "[T]o the extent possible" as proposed in this MA does not minimize adverse impacts on adjacent users. Rather, replacement of that language with "to the extent practicable and commercially viable" would be in line with 6280 guidance. Further, the RMP planning process should not be used to sanction controls on non- federal lands where such management is not authorized by FLPMA. See management action 7004. Industry position: Not acceptable Reason: BLM is required to adhere to Section 7(a)(2) of the NHTSA when establishing the trail management corridor for historic trails. In addition, the BLM should follow technical reference 6280 to inventory, assess, and monitor NHTs. Alternative B would be acceptable with replacement of "to the extent possible" with "to the extent practicable and commercially reasonable" along with removal of the reference to non-federals lands. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for highly visible projects and Congressionally Designated Trails in Chapter 2.2.6 management action 7005. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-86 | MA #7006 SD-01, HR-11, HR-10 No similar action. Highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) could be authorized within 20 miles of the NHT only if the project causes no more than a weak contrast (VRM) to the setting of the NHTs Industry position: Not Acceptable Reason: The use of 20 miles is arbitrary. The language is also not clear that this only applies to contributing sections and should only apply to contributing sections. The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM actions. Authorize highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) on a case-by-case basis avoiding adverse impacts to the NHTs Industry Position: Acceptable The use of case-by-case basis makes the most sense in the Known Sodium Leasing area where much of the area is already compromised by existing development. Authorize highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) that are outside the National Trail Management Corridor only if the project causes no more than a weak contrast (VRM) as viewed from important corridor related National Historic and Scenic Trails features, contributing trail segments, high potential sites and segments, and other key observation points that contribute to the nature and purpose of the National Trails. Industry position: Not Acceptable Reason: The definition of important features, high potential sites and segments is not clear to allow for | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for highly visible projects and Congressionally Designated Trails in Chapter 2.2.6 management action 7006. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | reasonable interpretation and planning. The IAM methodology described in Technical Reference 6280 should be used to establish the VRM classifications for the NHTs and crossings. Without completing a viewshed analysis of the NHTs the BLM cannot arbitrarily establish VRM actions. NHT specific actions should NOT apply outside of the NHT Management Corridor. Alternative C is acceptable. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-87 | MA #7014 SD-01, HR-11 No similar action Industry Position: Acceptable Reason: Follow current rules, regulations and policy New audible and atmospheric effects would not exceed current levels existing along NHT corridors. Industry Position: Not acceptable Reason: Atmospheric effects are not defined and are arbitrary as noted and must be removed. There are no known/established audible restrictions for trails and the National Trails System Act has no references to audible impacts. If audible impacts are of concern, then impacts from federal actions such as the FAA should be considered. Such impacts are likely greater than industrial impacts. Additionally, there is no outlined method to measure such effects so the restriction can't be evaluated. Subject projects creating new audible and atmospheric effects to NHTs to measures in the NHPA to avoid, minimize or mitigate those effects. Industry Position: Not acceptable Reason: Atmospheric effects are not defined and are arbitrary as noted and must be removed. There are no known/established audible restrictions for trails and the National Trails System Act has no references to audible impacts. If audible impacts are of concern, then impacts from federal actions such as the FAA should be considered. Such impacts are likely greater than industrial impacts. Additionally, there is no outlined method to measure such effects so the restriction can't be evaluated. Allow actions that introduce new audible and atmospheric levels that exceed current levels in the National Trails Management Corridor only if they do not cause adverse impacts to the congressionally designated trails. Industry Position: Not acceptable Reason: Atmospheric effects are not defined and are arbitrary as noted and must be removed. There are no known/established audible restrictions for trails and the National Trails System Act has no references to audible impacts. If audible impacts are of concern, then impacts from federal actions such as the FAA should be considered. Such impacts are likely greater than industrial impacts. Additionally, there is no outlined method to measure such effects so the restriction can't be evaluated. Alternative A is acceptable. | See Chapter 1.4 Planning Criteria for compliance with applicable laws. A range of alternatives has been analyzed for audible and atmospheric effects and Congressionally Designated Trails in Chapter 2.2.6 management action 7014. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-88 | MA #7017 SD-02, HR-09 Management of historic roads and trails that are eligible for the NRHP but are not congressionally designated would generally be the same as for designated trails including a ¼-mile protective setback on either side of the trails. These trails may be recommended for listing to the NRHP. These trails include the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road. Industry position: Not acceptable Reason: The reference to "generally the same as for designated trails" as the proposed management actions for designated trails are not acceptable for eligible but not designated trails. Trails not designated as National Historic Trails (non-NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming), signed August 25, 2014, rather than applying broad-brush buffer and exclusion areas. Manage historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails), as follows: Within ½ mile on either side of an intact trail or road segment, unless the proposed project and its associated impacts are not visible from the road or trail, would be: 1) open to mineral leasing with NSO restrictions; 2) closed to mineral material sales; 3) an exclusion area for new right-of- way; 4) pursue withdrawal from mineral location. ½ to two miles on each side of the intact road or trail segment, unless the proposed project and its associated impacts are not visible from the road or trail, would be: 1) open to mineral leasing with NSO restrictions; 2) closed to mineral material sales; 3) an exclusion area for new right-of- way; 4) open to locatable minerals. Two to five miles on each side of the intact road or trail segment, unless the proposed project and its associated impacts are not visible from the road or trail, would be: 1) open to mineral leasing with CSU restrictions; 2) open to mineral material sales with CSU restrictions, 3) open to new right- of-way with CSU restrictions; 4) open to locatable minerals. Deny highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, and power plants) within zero to five miles on each side of intact segments of the road or trail unless the project and its associated impacts are not visible from the road or trail. Should any roads or trails be congressionally designated as part of the NHT system, they would be managed according to the prescriptions set forth in the National Historic Trails section. Various Expansion Era (i.e., 1870 to 1940) roads would be managed according to their historical context. Era Roads are those routes developed after the establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the Oregon/Mormon Pioneer National Historic Trails Management Plan would be applies, Manage, on a case-by-case basis based on their resource values, historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road and other Expansion Era roads and trails). Provided such actions do not occur directly on the historic road, actions along the intact road or trail segments would be: * Open to mineral leasing with standard lease stipulations * Open to mineral material sales * Open to new right-of-way * Open to locatable minerals. Manage highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, and power plants) with the following restrictions from zero to five miles on each side of intact segments of the road or trail unless the project and its associated impacts are not visible from the road or trail. Should any roads or trails be congressionally designated as part of the NHT system, they | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | would be managed according to the prescriptions set forth in the National Historic Trails section. Various Expansion Era (i.e., 1870-1940) roads would be managed according to their historical context. Era Roads are those routes developed after establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the Oregon/Mormon Pioneer National Historic Trails Management Plan would be applied, although the ¼-mile protective setback might not always be applied. Management actions would include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments. Activity plans may include NRHP nomination of those Expansion Era trails that qualify. Industry position: Not acceptable Reason: BLM applies restrictions without conducting an analysis according to guidance. Trails not designated as National Historic Trails (non-NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Historic roads and trails that are eligible for the NRHP but are not congressionally designated (these include, but are not limited to the Point of Rocks to South Pass Road and other Expansion Era roads and trails) will be managed according to their historical context and as follows: * Actions within 500 feet of a contributing segment of road or trail: - NSO for fluid minerals - Designate as a ROW avoidance area. For most projects, the setting will be analyzed out to one mile on either side of contributing segments of the historic roads and trails. For highly visible projects, impacts to setting will be analyzed on a case- by-case basis. Should any roads or trails be congressionally designated as part of the NHT system, they would be managed according to the prescriptions set forth in the National Historic Trails section. Industry position: Not acceptable Reason: Trails not designated as National Historic Trails (non-NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming), signed August 25, 2014, rather than applying broad-brush buffer and exclusion areas. Trails not designated as National Historic Trails (non-NHT trails) will be managed as cultural resources under MAs #5000-5004. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-89 | although the ¼- mile protective setback might not always be applied. Management actions would include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments. Activity plans may include NRHP nomination of those Expansion Era trails that qualify. Industry position: Not acceptable Reason: BLM applies restrictions without conducting an analysis according to guidance. Trails not designated as National Historic Trails (non-NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming), signed August 25, 2014, rather than applying broad-brush buffer and exclusion areas. Protocol Between BLM and SHPO (Wyoming), signed August 25, 2014, rather than applying broad-brush buffer and exclusion areas. | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13787-91 | MA #7021 SD-02 HR-09 No similar action Industry Position: Acceptable No similar action No similar action Manage the Overland and Cherokee Trails to preserve the trail values, characteristics, and settings for which the trail was identified for study. Actions within ¼ mile of contributing trail segments: * CSU for fluid minerals * Closed to Oil Shale * Designate as a ROW avoidance area * Petition to segregate and withdraw from locatable mineral entry * Open to solid leasable minerals by subsurface methods only. For most projects, the setting will be considered out to three miles to either side of contributing portions of trail. Allow, on a case-by-case basis, highly visible projects and/or projects out of scale with the surrounding environment (e.g. wind farms, gas plants, large transmission lines, and power plants) within five miles of the trail only if the project causes no more than a weak contrast (VRM) to the setting of the Overland or Cherokee Trails. Apply the National Historic Trail prescriptions (see National Historic Trails subsection) should any historic road or trail be designated as part of the National Historic Trail System. Industry position: Not acceptable Reason: This alternative does not take into consideration the energy corridors that were designated on federal lands under Section Trails not designated as National Historic Trails (non-NHT trails) will be managed as cultural resources under MAs 5000-5004. BLM will apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol between BLM and SHPO (Wyoming), signed August 25, 2014. Management Actions Analysis Table MA# Goal/Obj. Alternative A Alternative B Alternative C Alternative D Proposed Alternative 368 of the Energy Policy Act of 2005. Several of trail segments and proposed avoidance areas lie within the energy corridors and cannot be removed without undergoing NEPA. Further, the broad-brush ¼ mile ROW avoidance area is not acceptable. Trails not designated as National Historicl Trails (non- NHT trails) should be managed as cultural resources under MAs 5000-5004. BLM needs to apply guidance as outlined in Section 106 of the National Historic Preservation Act and the State Protocol Between BLM and SHPO (Wyoming), signed August 25, 2014, rather than applying broad-brush buffer and exclusion areas | See Chapter 1.4 Planning Criteria and Chapter 5.1 Consultation and Coordination for discussion of coordination with SHPO and other agencies. A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13826-4 | I would like to add a comment about the Historic Sites and Trails; the Oregon Trail, Overland Trail, Mormon Trails, the Parting of the Way, South Pass area and the other historic sites. I noted that the Alternative B plan and the Alternative D plan both say these would no longer be under the management of BLM. I am not sure what this exactly means. Will these be available for tourist and visits? Will they be left to go back to their natural state and not be cared for? I would like more clarification on this. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13826-7 | SD-01: Preserve and protect the historical remains and historical settings of congressionally designated National Historic Trails (e.g., Oregon, California, Mormon- Pioneer and Pony Express) and NHT-related resources (e.g., camps, graves, inscription sites, stations, natural landmarks). My Concern: These places should be made accessible because they are congressionally designated as national Historic trails. They need to be maintained and made accessible to all people. This can't be done if they are placed in a special designation or within ACECs. This would also involve the Continental Divide Trail. Also some of these sites have religious and spiritual and family heritage significance and need to be accessible to members of the public that have links to these. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13826-8 | SD-02: Preserve and protect the historical remains and historical settings, if appropriate, of other trails and roads that are eligible for the NRHP but are not congressionally designated. These roads and trails include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road, and Expansion Era Roads. My Concern: These trails need to be maintained and made available for the public to access. They provide an educational and cultural experience and link to our American past. I believe this needs to be done with respect and involvement with the people these sites have significance to. | A range of alternatives has been analyzed for management of eligible but not designated trails in Chapter 2.2.6 management actions 7017-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13856-1 | While we appreciate the attention paid to and the retention of the SRMA for the CDT, such designation may not be the top priority if other management actions occur. The Agency's Preferred Alternative B would provide for the most ideal CDT experience by optimizing conservation efforts in the area, particularly for the CDT's scenic integrity. The attention that Alternative B gives to ACEC's is a top priority for CDTC, as the management criteria for an ACEC can help to retain the character of the CDT through conservation efforts that support wildlife and plant life habitat, biodiversity, migration corridors, and a more remote, primitive experience on the trail. Additionally, the actions identified in Alternative B and partially Alternative D would provide a generous buffer from development such as extractive activities, renewable energies, and other actions that could potentially degrade the environment surrounding the CDT and, consequently, the CDT Experience. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13856-3 | To help achieve the stewardship goals of a National Scenic Trail, we encourage the Rock Springs BLM office to employ the BLM's National Scenic and Historic Trail Inventory, Assessment, and Monitoring Methodology to identify the holistic values of the trail in the area - cultural, historic, scenic, etc.. The standards set forth in the IAM Methodology for National Scenic Trails helps to safeguards the nature and purposes of the CDT, ensures compliance with requirements across jurisdictions, provides consistent and repeatable processes for a Congressionally-designated resource spanning multiple field offices in the state, and identifies opportunities for innovative and adaptable management practices on the ground. Combined with consultation with partners and community members, CDTC urges the utilization of these standards and practices to determine the suitability of all BLM actions taking place within the Continental Divide landscape. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13856-4 | In 2024, CDT conducted a small business survey to gather data on the impact of the CDT for business owners and their community, and while report has not been published, these results from our 2022 Small Business Survey can help to give an idea of the importance of the CDT for local economies is: 90% of all respondents believe protecting, promoting, and enhancing public lands is important to the well-being of businesses, jobs, and their community's economy - 80% have seen growth in business in their community at large due to use of the CDT since 2014 - 70% of respondents support the 30x30 initiative to protect 30% of lands and waters in the continental U.S. by 2030 - 70% of respondents reported that trail users spend money and have a positive impact on their revenue - 60% have experienced growth in their business in particular due to use of the CDT since 2014 | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13899-19 | the establishment of viewshed protections for the main branches of the Oregon-California- Mormon National Historic Trails with an adjustment to the corridor. We ask the BLM to adjust the blanket 5-mile (on each side of the trails) corridor to instead parallel the management set forth for the National Historic Trails (NHTs) Management Corridor in the Lander Resource Management Plan67 - to have the protections extended up to five miles on each side according to a viewshed analysis. Within this corridor, the proposed closures in Alternative B for fluid mineral leasing, exclusion of rights-of-way, proposed withdrawal for locatable minerals, and closure for salable minerals are appropriate. We believe this management direction should be applied to the entire National Historic Trails management corridor and all branches of the National Historic Trails (including the Lander Road) from the Lander-Rock Spring Field Office to U.S. Highway 191. From U.S. Highway 191 to the western field office boundary, we believe this management regime, within a buffer of up to five miles, should be applied to all "high potential"68 trails segments-for those in poorer condition, the buffer can be reduced to a ½ mile. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13899-20 | We do not support the proposed management in Alternative B that excludes rights-of-way along these trails and up to 2 miles on either side71 - particularly where these trails conflict with the actions we support regarding the designation of West-Wide Energy Corridors (we discuss this below in more detail but will note we support where the Energy Corridors cross historic trails). We believe a more targeted approach in the public-private land checkerboard is warranted: apply Rights-of-Way exclusion to the intact and National Register-eligible sections of trail itself. For the viewshed buffer, ROW avoidance is merited within a 1/2 mile of each side of the intact and eligible sections. Additionally, where avoidance and exclusion are not achievable, we ask the BLM to invest in significant mitigation measures to preserve the history of these trails: including having the agency support | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |

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| | | documentation, development of exhibits, and other educational opportunities that help provide learning opportunities about these routes and their history. | |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13904-10 | MA 7004 Alt B is particularly arduous. Fifteen miles in VRM class II and Five miles on either side of the NHT is too far, ¼ mile is much more realistic because the ramifications of a vrm class II rating make it difficult to impossible to make a range improvement like a water tank or some other benefit to both livestock and wild life. | A range of alternatives has been analyzed for VRM classes and Congressionally Designated Trails in Chapter 2.2.6 management action 7004. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13925-4 | . Congress did not designate South Pass due to the private lands affected and efforts to establish South Pass Historic Trail or Landmark District due to lack of landowner consent. The DEIS incorrectly assumes the integrity of the other trail segments and nevertheless imposes a 5-mile buffer on each side. Work on the Hiawatha Infield EIS raised significant questions about the integrity and location of Cherokee Trail segments and those reports disprove the draft RMP's scenic buffer and management as an historic trail. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 832 - Special Designations–Congressionally Designated Trails (7000-7022) | #13974-11 | The well-preserved condition and number of intact historic trail and wagon road miles in this Field Office warrant serious protection. Ideally and for continuity, the Rock Springs RMP would match the National Historic Trails protections outlined in the Lander Field Office RMP, with similar viewshed protections and NSO conditions. For Management Actions 7001-7006, Alternative D provides the most balanced approach, acknowledging that viewshed in certain parts of the National Historic Trails has been compromised. | A range of alternatives has been analyzed for Congressionally Designated Trails in Chapter 2.2.6 management actions 7000-7022. Analysis of impacts for actions in each alternative is found in Chapter 4. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #4026-9 | Chapter 3.22.2 Wilderness Study Areas (WSA). In order for an area to have been designated a WSA, those lands had to have been determined to possess wilderness characteristics. In other words, all WSAs are also LWCs. I have participated in the BLM WSA process since the late 1970s and have been dismayed over the years when politicians sponsored legislation to unilaterally remove WSA status from BLM lands that underwent extensive agency review and public comment. I fully support Alternative B, where if an existing WSA has that status removed, those lands would still be considered LWCs and will subsequently be managed to protect those wilderness characteristics. This proposed management falls completely within the guidelines of Chapter 1.6 A of BLM Manual 6310. | A range of alternatives has been analyzed for potential dismissal of Wilderness Study Areas in Chapter 2.2.6, Special Designations - Wilderness Study Area, Management Action 7101. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13287-1 | For example, wilderness inventories have identified lands with wilderness characteristics that do not qualify for protection solely because they are consolidated into 640-acre units, and which would fully qualify for wilderness (and Wilderness Study Area) protections if they were in consolidated federal ownership. A National Conservation Area proposed for the Red Desert (Attachment 1) includes checkerboard lands, whose management would be complicated by intermixed private lands and minerals. Sage grouse Priority Habitat Management Areas exist in checkerboard lands, and it is difficult to apply the full level of prescribed protections to these checkerboard portions due to fragmented land ownership patterns. Wildlife migration corridors cross the checkerboard, and their conservation is impeded by the presence of private inholdings. Alternative B considers providing public access to public lands across private property at the landowner's request (DEIS at 2-109); if access is to be granted only on a request basis, it should be at the public's request rather than the landowner's. | See chapter "3.22.2 Special Designations - Wilderness Study Areas" for reference of wilderness qualifiers and BLM manuals. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13515-5 | Instead of independent (large and small) ACEC management direction, RMEF recommends that specific management treatments and decisions be made at the project level where potential impacts can be better assessed. Special Designation Wilderness designation (Wilderness Areas - WA, Lands with Wilderness Characteristics - LWC, and Wilderness Study Areas - WSA) and ACECs often restrict various active land management activities that are needed to ensure healthy, sustainable landscapes. This concept is embedded in several proposed land use designations. RMEF supports active management on our public lands to benefit wildlife habitat and manage fire risk. Given the current conditions of many public forests and rangelands, RMEF supports planning components that limit additional wilderness and other special designations that limit management. | Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13542-66 | Literature Cited. The Wilderness Society. 2007. LC-15 This report uses data from 2005 and prior. The report is very generalized and discusses the entire western USA. The area being analyzed for the RMP should not use generalized statements that apply to Idaho, Montana, Wyoming, Utah, Colorado, and New Mexico. Statistics presented within the report end in 2005 and do not look at any of the large economic impacts in the last 18 years for farming and ranching, mining, oil and gas extraction, or the timber industry. This report also implies that processional and service sectors are not used in and support those industries previously stated. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | Socioeconomic analysis methods are adequately covered in section 4.22.2. See also Chapter 3 Introduction for a description of baseline conditions for analysis. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13624-15 | Several areas within the RMP have been identified as wilderness study areas. The purpose of a wilderness study area is to protect a specific location until Congress formally designates the location as "wilderness". Alternative B states that "should Congress not designate the [wilderness study areas] in the planning area (partially or wholly) as wilderness, the management of the identified areas would be for wilderness values." Draft EIS, Management Action 7101, Ch. 2, p. 2-152. Managing for wilderness values appears to imply that areas not designated as | See update to section 2.2.6, Special Designations, Wilderness Study Areas (7101) - correction See also Glossary for definition of 'wilderness characteristics'. |

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| | | "wilderness" by Congress would, instead, be managed as wilderness by BLM. The term "wilderness values" is not defined and does not appear to be a consistently used or legally binding term. BLM should provide additional information describing what it means to manage for "wilderness values". Allowing BLM to manage land as "wilderness" when it has not been designated as "wilderness" ignores congressional intent and overrides congressional power to designate a wilderness area in accordance with 16 U.S.C. 1132(b). Even if areas outside of a designated Wilderness Study Areas are to be managed for "wilderness values", such areas need to be clearly defined, identified and the impacts of such management identified and articulated. However, management for "wilderness values" should not be used as a work-around Congress' role in the lawful designation of wilderness. | |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-64 | Please provide to the public the results of now decades old wilderness studies as part of this RMP so congress can make a decision. | Congressional decisions on wilderness are outside of the scope of this RMP. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-65 | It appears BLM really does not care what Congress decides, they will manage the area for wilderness values. | Alternatives adequately covered in section 2.2.6, Special Designations, Wilderness Study Areas, Management Actions 7100-7103. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-66 | As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." BLM must provide the results of its analysis of the wilderness study areas in this RMP. The only analysis available to the public is the 2011 Wilderness Characteristics Inventory, which includes a form for each area | Wilderness Study Area designation process is covered in section 3.22.2. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-67 | This is the only publicly available information regarding the wilderness analysis that has been completed in the past 47 years. This analysis is completely lacking in depth and true analysis as required by BLM policy. Without unbiased scientific study, monitoring and reporting, how is Congress to ever decide on these study areas? BLM should conduct a true wilderness study as part of this planning process for each of the areas suggested to have wilderness characteristics and WSA's, submit a report of their findings to Congress, obtain Congress' determination, and only then include suitable areas into the Draft RMP/DEIS. | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-68 | Further, the Draft RMP/DEIS 2011 Wilderness Characteristics Inventory includes some mapping but the illustrations are by township/range rather than by wilderness characteristic or study area. This is misleading to the reader, and it makes a determination of anthropogenic impacts unclear. | Map 3-21: Lands With Wilderness Characteristics adequately displays lands that meet criteria for consideration. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-69 | The illustrations below show one example of a wilderness study area and the linear features therein. This exercise to map linear features was completed within a few hours, so a more detailed study would likely result in the mapping of more linear features. The exercise was not intended to be exhaustive, but illustrative. The illustrations below show one example of a wilderness study area. The area shown is Devil's Playground WSA and Twin Butte WSA, with the draft RMP/DEIS proposed Pine Springs ACEC. Using 2019 NAIP imagery, the red lines show the anthropogenic linear features such as roads, two-tracks, and fences. This is more 'study' of the WSA in a few hours, than what appears to have been completed by BLM in the past 47 years, based on what is publicly available. This type of analysis and study should be included in the report to congress to assist them in determining what should be studied as a wilderness or not. This area clearly has a significant amount of linear features and is absolutely not a roadless area, it has extensive livestock grazing including stock dams and reservoirs. Further, it has significant human induced noise from the nearby highways and from motorboats on the adjacent Flaming Gorge National Recreation Area. In conclusion, the work of man's hand is noticeable and as such should not meet Congress' need for further study as a wilderness and it is the duty of BLM to provide unbiased reporting to Congress. Figure 7. Wilderness study area - aerial mapping of roads and fences | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-101 | BLM did not meet the standard of "hard look" in preparing the Draft RMP. A "hard look" requires reliance on the best, most current data available. The "hard look" standard was intended not only to make sure the agency made an informed decision but to assure the public and affected parties were provided a clear understanding of the impacts of the Draft RMP. BLM has not taken a "hard look" at wilderness study areas and as a result those areas remain in limbo. | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. See also Chapter 3 Introduction for a description of baseline conditions for analysis. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13751-173 | MA #7101 Should Congress not designate areas (partially or wholly) as wilderness, the management of the nondesignated areas would be in accordance with the approved Green River RMP or as otherwise directed by Congress. Industry Position: Not acceptable Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. |

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| | | portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. Should Congress not designate the WSAs in the planning area (partially or wholly) as wilderness, the management of the identified areas would be for wilderness values. Industry Position: Not acceptable Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. Should Congress not designate areas (partially or wholly) as wilderness, the management of the identified areas would be for multiple use. Industry Position: Not acceptable Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. WSAs that are released by Congress from wilderness study will no longer be subject to management as Wilderness Study Areas. These lands will be managed under general BLM Management authorities found in FLPMA, 43 USC 1701 and associated regulations and policies, including applicable land use plans. Industry Position: Acceptable, but BLM must complete its analysis and release to congress. Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. Alternative D but BLM must complete its analysis of lands with wilderness characteristics and wilderness study areas and add the analysis to the RMP/DEIS. The 2011 Wilderness Characteristics Inventory is the only available information in 47 years on this topic. This analysis is completely lacking in depth and scientific analysis as required by BLM policy. Without unbiased scientific study, monitoring and reporting, how is Congress to ever decide on these areas? BLM should conduct a true wilderness study as part of this planning process for each of the areas suggested to have wilderness characteristics and WSA's, submit a report of their findings to Congress, obtain Congress' determination, and only then include suitable areas into the Draft RMP/DEIS. | |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13769-1 | The BLM should consider implementing land exchanges with the Rock Springs Grazing Association (RSGA) to protect WSAs like Adobe Town. Our conversations with RSGA indicate that they are amenable to land exchanges in that area. | Outside the scope of the RMP. See Section 2.2.4 for a Description of Alternatives Considered but Eliminated from Analysis. Land Exchange process adequately covered in Chapter 2.2.6, MA #s 6014, and Chapter 3.20.3, Exchanges / Purchases sections. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13769-3 | It seems to us that Monument Valley in S3, T14N, R97W is a great place to start protecting the Adobe Town WSA. A proper buffer would provide such protection; it would extend from Monument Valley in a north-westerly arc roughly covering Adobe Town Rim, then extend northerly to Manuel Gap, then to the north-east trending arc covering the Haystacks. (shown on BLM 1:100,000 map, Kinney Rim) This buffer would involve an exchange of approximately 22 sections of land. We urge the BLM to pursue such an exchange. | Outside the scope of the RMP. Wilderness Study Area designation process is covered in section 3.22.2. Land Exchange process adequately covered in Chapter 2.2.6, MA #s 6014, and Chapter 3.20.3, Exchanges / Purchases sections. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13787-92 | MA #7101 Should Congress not designate areas (partially or wholly) as wilderness, the management of the nondesignated areas would be in accordance with the approved Green River RMP or as otherwise directed by Congress. Industry Position: Not acceptable Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. Should Congress not designate the WSAs in the planning area (partially or wholly) as wilderness, the management of the identified areas would be for wilderness values. Industry Position: | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. |

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| | | Not acceptable Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. Should Congress not designate areas (partially or wholly) as wilderness, the management of the identified areas would be for multiple use. Industry Position: Not acceptable Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. WSAs that are released by Congress from wilderness study will no longer be subject to management as Wilderness Study Areas. These lands will be managed under general BLM Management authorities found in FLPMA, 43 USC 1701 and associated regulations and policies, including applicable land use plans. Industry Position: Acceptable, but BLM must complete its analysis and release to congress. Reason: The non-designated areas fall into an interim policy under the RMP and no action ever occurs. Page 23-24 of the Final Scoping Report: "WSAs will continue to be managed under the Interim Management Policy for Lands under Wilderness Review until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, BLM will analyze lands with wilderness characteristics as part of the planning process." There is no analysis available from BLM on the Wilderness Study Areas and the 2011 analysis for Lands with Wilderness Characteristics is minimal. The required analysis must be included in the Draft RMP/DEIS so that congress can make a decision on designations. Alternative D but BLM must complete its analysis of lands with wilderness characteristics and wilderness study areas and add the analysis to the RMP/DEIS. The 2011 Wilderness Characteristics Inventory is the only available information in 47 years on this topic. This analysis is completely lacking in depth and scientific analysis as required by BLM policy. Without unbiased scientific study, monitoring and reporting, how is Congress to ever decide on these areas? BLM should conduct a true wilderness study as part of this planning process for each of the areas suggested to have wilderness characteristics and WSA's, submit a report of their findings to Congress, obtain Congress' determination, and only then include suitable areas into the Draft RMP/DEIS. Resource: Special Designations (SD) - ACECs (7400-7570) | |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13806-1 | This is a testament to the long-standing value placed upon such wilderness areas by Wyomingites and the risks they face if not adequately protected. I believe this provides justification for special management under such tools as overlapping ACECs as well as the commitment from the BLM in the preferred alternative to manage these areas for their wilderness values even if released by congress. I recommend retaining both in the final plan (In reference to management action 7101). | A range of alternatives has been analyzed for potential dismissal of Wilderness Study Areas in Chapter 2.2.6, Special Designations - Wilderness Study Area, Management Action 7101. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13899-13 | E. BLM should manage Wilderness Study Areas and their viewsheds to protect wilderness quality. We support the management direction of MA 7101 in Alternative B that states "should Congress not designate the WSAs in the planning area (partially or wholly) as wilderness, the management of the identified areas would be for wilderness values."36 We also support MA 7103 in Alternative B, which adds a viewshed buffer around WSAs, managing three miles around each WSA (or the visual horizon, if it is closer) as Visual Resource Management Class II.37 These are important management actions for maintaining the wilderness character of these units. Furthermore, we support Areas of Critical Environmental Concern designations proposed in Alternative B that include and overlap WSAs. These important administrative prescriptions add an additional layer of protection and natural habitat connectivity to those areas not yet permanently protected. Maintaining ACEC boundaries as proposed under Alternative B to include protections for current WSAs aligns with national habitat connectivity priorities and BLM direction that ACECs are to be as large as is necessary to protect the important and[...] relevant values38. Those important and relevant values do not dissipate at WSA boundaries, are often distinct from wilderness characteristics, and yet provide important protections for wildlife and plant communities and cultural resources that contribute to a WSAs naturalness and undeveloped character. | A range of alternatives has been analyzed for potential dismissal of Wilderness Study Areas in Chapter 2.2.6, Special Designations - Wilderness Study Area, Management Action 7101. ACEC Alternatives are adequately analyzed in Chapter 2.2.6, MA #s 7400-7570. |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #13899-14 | BLM should consider new Wilderness Study Areas during this planning process. BLM has authority under FLPMA Section 202 to designate lands as Wilderness Study Areas (WSAs) to ensure their durable conservation management.39 WSAs provide the most consistent and durable opportunity to protect wilderness characteristics and undisturbed public lands through land-use planning process. Designating an area as a WSA under FLPMA Section 202 is consistent with BLM's mandate to manage public lands for multiple use and sustained yield, including preservation of wilderness resources, while ensuring decisions about the future of these lands are made with consideration of public input. WSAs designated administratively through NEPA processes offer ample | Wilderness Study Area designation process is covered in section 3.22.2. |

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| | | opportunities for public input, collaboration with local communities, and transparent decision-making. WSA management, clearly outlined in BLM Manual 6330, provides certainty for these resources as compared to other case-by-case management decisions for other special designations. We believe BLM should consider designating new Section 202 WSAs in the Rock Springs Field Office. The draft Rock Springs RMP and EIS fails to analyze new WSA designations. When BLM commits and brings into compliance its LWC inventory, as outlined above, we believe the agency should analyze the potential to manage LWC units, especially those adjacent to existing WSAs, as Wilderness Study Areas. This includes the LWC units adjacent to Devil's Playground, Twin Buttes, Honeycomb Buttes, Oregon Buttes, Buffalo Hump, Whitehorse Creek, and Red Creek Badlands WSAs. | |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #14023-1 | I recommend that Lands with Wilderness Characteristics (LWC) be managed as Wilderness. * I recommend that WSA and LWC be designated and managed as non-mechanized (non-motorized and no bicycle) areas. | Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management of Lands with Wilderness Characteristics are analyzed in Chapter 2.2.6 Section Physical Resources - Lands with Wilderness Characteristics, Management Actions (1500-1517). |
| 833 - Special Designations–Wilderness Study Areas (7100-7103) | #14023-4 | I recommend that current Wilderness Study Areas (WSA) be managed for their wilderness values even if they are released by congressional action. | A range of alternatives has been analyzed for potential dismissal of Wilderness Study Areas in Chapter 2.2.6, Special Designations - Wilderness Study Area, Management Action 7101. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #9227-1 | Regarding the first factor, we were able to find a digital version of the 1992 analysis of Wild and Scenic eligible and suitable streams for the Green River Resource Area (the former name of the Rock Springs Resource Area), but the complete report was not included in the appendices of this draft RMP and EIS. Therefore, members of the public were not able to review the earlier findings and maps of eligible and suitable waterways. It is noteworthy that in the 1992 report, the BLM found five of the nine Wild and Scenic eligible streams to be unsuitable for designation due to the scattered nature of the BLM parcels along these streams, but it provided no land ownership maps demonstrating that to be true. The BLM did note in the 1992 report the following with regards to land ownership along the Wild and Scenic eligible sections of the Green River: "The BLM administers only a minute amount of land (4%) along the 71 miles of the Green River flowing through the Green River Resource Area. However, other Department of the Interior Agencies (Bureau of Reclamation and U.S. Fish and Wildlife Service) manage a large part of the remaining lands along the river. In addition, there was quite a bit of public interest for designation of the Green River as a Recreational River. The BLM would participate in any future joint study efforts or wild and scenic river reviews along the Green River (pg. 154, Record of Decision and Green River RMP, October 1997)." Unfortunately, because the BLM declined to conduct an updated analysis of Wild and Scenic eligible and suitable streams in the recently released draft RMP and EIS, it did not follow through on its previous commitment to "participate in any future joint study efforts or wild and scenic river reviews along the Green River." | The requested report is found in Volume 2, Appendix L of the DEIS. Creation of a joint management plan for the Green River is outside the scope of this document. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #9227-2 | Below is a partial list of some of the common changes that have occurred on BLM lands over the past few decades that could affect Wild and Scenic eligibility and suitability: * Climate change has profoundly impacted waterways and aquatic species, making the preservation of cold water refugia a higher priority * More frequent and intense wildfires have burned millions of acres of public lands * New species have been listed or petitioned for listing under the Endangered Species Act * Previously impounded waterways have been restored through dam removals * Native fish populations have been restored * Private land inholdings have been brought into public ownership * New forms of recreation (e.g., packrafting) have exploded in popularity * Recognition of tribal treaty rights has broadened, and protection of indigenous cultural sites has become a higher priority | Chapter 3.22.3 paragraph 3 states that the contents of 1992 report were reexamined and determined to still be sufficient for existing conditions. Appendix L of the DRMP (volume 2) shows the suitability review report. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #9227-3 | In closing, we believe the BLM made an egregious error by failing to conduct an updated analysis of Wild and Scenic eligible and suitable streams in its draft RMP and EIS. In so doing, it violated section 5(d)(1) of the Wild and Scenic Rivers Act and ignored its own guidance in BLM Manual 6400 pertaining to Wild and Scenic Rivers. In order to comply with existing laws and guidelines, the BLM must conduct a new Wild and Scenic eligibility and suitability analysis before issuing a final RMP and EIS. | Chapter 3.22.3 paragraph 3 states that the contents of 1992 report were reexamined and determined to still be sufficient for existing conditions. Appendix L of the DRMP (volume 2) shows the suitability review report. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #13624-37 | Wild and Scenic Rivers and Streams The Draft RMP/EIS states that a 9.7-mile reach of the Sweetwater River was "found to meet the wild and scenic rivers suitability factors to be given further consideration for inclusion in the Wild and Scenic Rivers System." Draft RMP/EIS, Ch. 2, p. 2-153. However, nine stream segments are identified to be eligible for Wild and Scenic designation, for a combined total of 281.15 miles. Draft RMP/EIS, Ch. 3, § 3.22.3, pp. 3-29 to 3-30. The identified Management Action #7203 specifies that half a mile on either side to the riverbank would be a right-of- way exclusion, meaning that no mineral development or crossings of pipelines or roads will be allowed. Map 6 depicts what WDEQ understands those wild and scenic river segments and associated right-of-way exclusions would be. If Map 6 is correct, BLM should identify and discuss the impacts on development, such as electric transmission and pipelines, that would be impacted by those exclusion areas. BLM should also provide information on how lands remaining available for multiple use would be accessed. Additionally, it is unclear how WDEQ-WQD could access these lands for the purposes of water quality monitoring, sampling, and non-point source activities when necessary. | Chapter 3.22.3 states all river segments considered for suitability, and those not found to be suitable. Appendix L of the DRMP (volume 2) shows the suitability review report for all considered river segments. Wording and economic analysis is sufficient for impacts of those lands BLM identified as suitable (see summary results of Appendix L) |

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| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #13751-72 | Page L-21 shows R112W, T18N, Section 6. The Green River does not exist in that area. The table should be corrected accordingly. | See updates on page L-21. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #13899-15 | BLM should complete an updated Wild and Scenic Rivers eligibility study. BLM's decision to not conduct an updated analysis of Wild and Scenic eligible and suitable rivers during this resource management plan revision is unreasonable. The last review of waterways in this planning area for potential Wild and Scenic Rivers (WSR) suitability was in 1992. BLM's determination that the 1992 report "was sufficient" and "no additional evaluation would occur" for this draft RMP is not defensible.40 According to BLM's guidance for Wild and Scenic Rivers,[...] "If a systematic evaluation of eligible rivers or a comprehensive administrative unit-wide suitability study has been previously completed and documented, additional assessment and study through the land use planning process need only be done if: (1) the documentation no longer exists or is incomplete or outdated; (2) changed circumstances warrant additional review of eligibility (e.g., a new outstandingly remarkable value, see chapter 3.1E)".41 The 1992 evaluation of BLM waterways for potential WSR designation is not only outdated, citing only a portion of that report in Appendix L for this draft RMP makes that documentation incomplete for this public planning process. At a minimum, the full report should be incorporated into this draft for public review, given the length of time (32 years) since it was made available. Clearly it is also outdated, thus, BLM's first requirement for additional assessment has been met. Additionally, doubtless conditions have changed along these waterways since 1992-climate change has impacted waterways and aquatic species, altering conditions for cold water refugia and the species that depend on them. Land ownership along the streams may have shifted or will imminently shift.42 In order to comply with Manual 6400 and the Wild and Scenic Rivers Act, BLM must commit to updating the study of Wild and Scenic River suitability after the completion of the Rock Springs RMP. | Chapter 3.22.3 paragraph 3 states that the contents of 1992 report were reexamined and determined to still be sufficient for existing conditions. Appendix L of the DRMP (volume 2) shows the suitability review report. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #13899-16 | H. Support for Wild and Scenic suitability determinations for the Sweetwater River. Because there was no updated study to find other suitable waterway segments, the only segments considered for further inclusion in the Wild and Scenic Rivers system are nine segments along the Sweetwater River in the Big Sandy Foothills. In both Alternatives A, B, and D the BLM recommends classifying 5.8 miles as "wild," .5 miles as "scenic," and 3.4 miles as "scenic"43. We support these classifications and the associated management proposed in Alternative B to maintain these qualities. The management afforded to the Sweetwater River is warranted given in the Field Office it is a Class I water designated by the State of Wyoming Department of Environmental Quality.44 | Chapter 3.22.3 paragraph 3 states that the contents of 1992 report were reexamined and determined to still be sufficient for existing conditions. Appendix L of the DRMP (volume 2) shows the suitability review report. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #14023-2 | I recommend that 9.7 miles of the Upper Sweetwater River be managed and recommended for Wild and Scenic River Designation. | Appendix L of the DRMP (volume 2) shows the suitability review report. Chapter 2.2.6 Management Actions 7200-7234 (volume 1) analyzes a range of alternative for management of the Sweetwater River. |
| 834 - Special Designations–Wild and Scenic Rivers (7200-7234) | #14023-3 | I recommend the BLM manage all sections of streams retaining Wild and Scenic values as if they were designated as such. | Appendix L of the DRMP (volume 2) shows the suitability review report. |
| 835 - Special Designations–Management Areas (7300-7348) | #13210-11 | 11. The task force recognizes the important value of the Greater Little Mountain Area, a crown jewel in southwest Wyoming; therefore, we support management actions that conserve the area's hunting, fishing, and recreational opportunities while maintaining the multiple-use mandate. | See DEIS Volume I Chapter 2.2.6 Management Actions 6540-6541 for a range of alternatives analyzed regarding the potential Little Mountain Special Recreation Management Area. |
| 835 - Special Designations–Management Areas (7300-7348) | #13210-12 | 12. The task force recognizes that the Northern Red Desert (Jack Morrow Hills and South Pass Area) is of national and local economic and cultural significance, rich with the history, scenic beauty and wildlife of the American West and Indigenous cultural use. It is a rugged and remote landscape that offers opportunity for many uses. We support BLM management actions that conserve the area's wildlife, tourism, motorized and non-motorized access, recreation, cultural, grazing, historic and wild land values while meeting its multiple use and sustained yield mandate. | See DEIS Volume I Chapter 2.2.6 Management Actions 7305-7311 for a range of alternatives analyzed regarding the potential Red Desert Watershed Management Area, and Management Actions 7498-7507 for a range of alternatives analyzed regarding the potential South Pass Historic Landscape ACEC. |
| 835 - Special Designations–Management Areas (7300-7348) | #13210-13 | 13. The task force recognizes that the Big Sandy Foothills (i.e., Wind River Front, Golden Triangle) area is regionally significant for its wildlife habitats, historic sites, recreational opportunities, and unparalleled views. The Foothills are a largely natural area that support migrating and wintering big game, the highest concentration of Greater Sage-grouse in the West, are crossed by the Oregon-California-Mormon emigrant trails, and which serve as a gateway to the Wind River Mountains. We support BLM management actions that conserve the area's local economic, wildlife, tourism, motorized and non-motorized access, recreation, cultural, grazing, historic and wild land values while meeting its multiple use and sustained yield mandate. | See DEIS Volume I Chapter 2.2.6 Management Actions 6543-6557 for a range of alternatives analyzed regarding the potential Wind River Front Special Recreation Management Area. |

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| 835 - Special Designations–Management Areas (7300-7348) | #13210-21 | 21. The task force does not support any special management area designations within the checkerboard except for existing Cedar Canyon and Natural Corrals, and Special Status Plant Species ACEC. The task force does recognize the importance of wildlife migration and winter range within the checkerboard. | See DEIS Volume I Chapter 2.2.6 Management Actions 7300-7348 for a range of alternatives analyzed regarding potential designation of Special Management Areas. See Management Actions 7400-7570 for a range of alternatives analyzed regarding potential designation of ACECs. |
| 835 - Special Designations–Management Areas (7300-7348) | #13247-3 | a. In general, zeroing out the SRMAs as proposed in Alternative Bis not consistent with Wyoming and Fremont County interest in concentrating recreation in specific areas to protect the larger landscape. Closing out the SRMA's is the opposite of that strategy and not consistent with a broader strategy to protect the landscape. | See DEIS Volume I Chapter 2.2.6 Management Actions 6521-6557 for a range of alternatives analyzed regarding potential designation of different Special Recreation Management Areas. |
| 835 - Special Designations–Management Areas (7300-7348) | #13658-14 | In the table of Special Designation - Management Areas (SOMA) there are several management areas that indicate further study must be done to determine if specific resources exist to meet the ACEC relevance and importance criteria or that the area was not found to contain values that meet these criteria. Yet, in Alternative B these same management areas in full or in part, are designated as ACECs. BLM must not designate areas that are required to contain specific resources and meet specific criteria when these areas are found to not contain these resources or meet these criteria or when it is unknown whether they do. BLM must analyze these areas and follow the law in their designation of them. Any area that was not found to contain these resources or do not meet the required criteria should be removed from all the alternatives as SDMAs. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action for ACECs and SDMAs has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 835 - Special Designations–Management Areas (7300-7348) | #13663-1 | I would also like to address the fact the BLM-preferred Alternative B would also eliminate all the Special Recreation Management Area designations yet the Draft EIS states "SRMA management will sustain and enhance these resources as well as accommodate visitor demand." In my opinion this is a wrong move to take special focus off significantly scenic and important, nationally recognized recreation areas. This would lead to a lack of management focus and degradation of the user experience. I would like to see these special designations remain in place. | See DEIS Volume I Chapter 2.2.6 Management Actions 6521-6557 for a range of alternatives analyzed regarding potential designation of different Special Recreation Management Areas. |
| 835 - Special Designations–Management Areas (7300-7348) | #13769-2 | While we wholeheartedly agree with the intent of the Monument Valley OMA, we are concerned that the private lands inholdings will make management of an OMA unworkable. We are unsure of the conservation goals and management options of O MAs. Protecting the Adobe Town WSA is of paramount importance. The Monument Valley OMA as proposed in Alternative B overlaps the WSA (RMP map 2-29) and encompasses so much private land that based on our experiences an OMA in Monument Valley would become an untenable management nightmare. | See DEIS Volume I Chapter 2.2.6 Management Actions 7340-7348 for a range of alternatives regarding potential designation and management for Monument Valley Management Area. |
| 835 - Special Designations–Management Areas (7300-7348) | #13776-3 | Failure to designate any SRMAs could increase user conflicts by placing recreators in the same places on the landscape, diluting the potential enjoyment for all recreators. For example, in the Red Desert, a camper may desire to camp at the only spring for 20 miles around, but that is also the only water for sage grouse, mule deer, or other species that rely on that area. With proper planning this conflict is easily avoidable; without these designations our ability to influence public behavior is diminished. | See DEIS Volume I Chapter 2.2.6 Management Actions 6521-6557 for a range of alternatives analyzed regarding potential designation of different Special Recreation Management Areas. |
| 835 - Special Designations–Management Areas (7300-7348) | #13776-7 | The 39,290-acre Killpecker Sand Dunes SRMA is highly used. As a destination with many opportunities, the SRMA reduces the recreation impact on other sites, roads, and routes. Alternative C is an appropriate management for this area as outlined in Management Actions 6531-6536, with the area being properly monitored for resource degradation and misuse. | See DEIS Volume I Chapter 2.2.6 Management Actions 6531-6536 for a full range of alternatives analyzed regarding potential designation of the Killpecker Sand Dunes Special Recreation Management Area. |
| 835 - Special Designations–Management Areas (7300-7348) | #13784-38 | * MA#7342, Alt B: "Manage surface disturbing activities, including rights-of-way to avid slopes greater than 20% and highly erosive areas." Comment: Page 2-10, MA#1107, Alternative B states "slopes greater than 25%." The Alternatives must be consistent between resources for analysis purposes. | Alternatives analyzed in Management Action 1107 would apply to the whole field office unless otherwise specified. The closure of areas with 20% or greater slope in alternative B of Management Action 7342 is specific to the potential Monument Valley Management Area. |
| 835 - Special Designations–Management Areas (7300-7348) | #13806-3 | As such, I recommend the BLM maintain ACEC boundaries as proposed in the preferred alternative to include overlapping protections for other special designations such as WSAs and LWCs. (In reference to management actions 7200-7570). | See DEIS Volume I Chapter 2.2.6 Management Actions 7200-7570 for a full range of alternatives analyzed potential designations of Special Management Areas and ACECs. WSAs are designated by congressional decision and are outside the scope of this DEIS. |
| 835 - Special Designations–Management Areas (7300-7348) | #13849-3 | Special Designations #7303. Page 161. I respectfully and firmly oppose. This is one more blatant attack on grazing in the over 1300 pages to this radical environmental plan. The very fact that the area is being looked at as a wilderness area and a restricted area is not only out of date, it is illegal for the BLM to include Wilderness in any change of land use. Federal Land Policy and Management Act (FLPMA) Section 603 is the only provision in federal law that authorizes the identification, study and recommendation of public lands for wilderness designation; but, it must be authorized by Congress. Thus, BLM is not at liberty to add wilderness to other provisions in FLPMA when Congress so clearly chose not to, State of Utah v. Babbitt, 137 F.3d 1193 (10th Cir. 1998). | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. Management Action 7303 is not related to Wilderness designations. |

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| 835 - Special Designations–Management Areas (7300-7348) | #13851-4 | Special Designations #7303. Page 161. I respectfully and firmly oppose. This is one more blatant attack on grazing in the over 1300 pages to this radical environmental plan. The very fact that the area is being looked at as a wilderness area and a restricted area is not only out of date, it is illegal for the BLM to include Wilderness in any change of land use. Federal Land Policy and Management Act (FLPMA) Section 603 is the only provision in federal law that authorizes the identification, study and recommendation of public lands for wilderness designation; but, it must be authorized by Congress. Thus, BLM is not at liberty to add wilderness to other provisions in FLPMA when Congress so clearly chose not to, State of Utah v. Babbitt, 137 F.3d 1193 (10th Cir. 1998). | Congressional decisions on wilderness are outside of the scope of this RMP. Wilderness Study Area designation process is covered in section 3.22.2. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. Management Action 7303 is not related to Wilderness designations. |
| 835 - Special Designations–Management Areas (7300-7348) | #13856-2 | The CDT and the relevant Special Recreation Management Areas in the Rock Springs area should be delineated on maps. As a National Scenic Trail, the CDNST protected corridor should be a spatially identifiable area wide enough to encompass the significant scenic, historic, cultural, and natural features that contribute to the trail's setting and significance (FSH 1909.12, Sec. 24.43 (2)(f)). | See DEIS Volume I Maps 2-29, 2-30, 2-31, and 2-32 to see all potential Specials Designations and Management Areas under the range of proposed alternatives, including Special Recreation Management Areas. |
| 835 - Special Designations–Management Areas (7300-7348) | #13911-9 | The BLM has layered ACEC designations on top of WSA designations throughout the planning area under Preferred Alternative B. According to BLM's own policies, "[a]n ACEC designation will not be used as a substitute for wilderness suitability recommendations." BLM Manual 1613, Section 06. While ACECs may be designated within WSAs, "[i]f an ACEC is proposed within or adjacent to a [WSA], the RMP or plan amendments shall provide a clear description of the relationship of the ACEC to the recommendations being made for the WSA." Id. at Section 33.D. One thing to consider when determining the appropriate management prescriptions for a Proposed ACEC is if the area includes "an area recommended for designation (or already designated)" and if the "management under the other designation afford sufficient protection of potential ACEC values." Id. at Section 22.A.6. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. Wilderness Study Areas may be dismissed or designated as Wilderness by congress at any time and changing designations to these areas are outside of the scope of this DEIS. |
| 835 - Special Designations–Management Areas (7300-7348) | #13915-1 | Overall, we propose the following resource management decisions focused solely on the GLMA portion of the Rock Springs field office: ? Implement an upfront plan for responsible oil and gas management within the proposed GLMA. ? Incorporate restrictions on oil and gas leasing, as well as exclusion areas for industrial right of way (ROW), to protect fish and wildlife habitat, improve watershed conditions, and maintain recreational opportunities. ? For areas that are made available for leasing, strict stipulations should apply. Note that No Surface Occupancy (NSO) stipulations on BLM lands surrounded by State and/or private lands will likely not be sufficient to protect sensitive watersheds due to risk of infrastructure development on State and/or private lands (further described below). ? Exception, waiver, and modifications criteria should clearly state that such changes will only be approved if the resource values in need of protection are no longer present and will not be present in the future (e.g., restored). ? Within areas made available for leasing, Wyoming Game and Fish Department's "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitat" should be incorporated to the maximum extent possible in the form of stipulations. ? For valid existing oil and gas leases within areas available for leasing, applications to drill should only be approved if stipulations identified in the revised RMP are incorporated as conditions of approval. For valid existing leases within areas that are made unavailable for leasing, the revised RMP should identify conditions of approval that will protect fish and wildlife habitat, improve watershed conditions, and maintain recreational opportunities. ? For valid existing leases, the revised RMP should identify criteria under which granting or renewing lease suspensions would be considered, as well as the criteria for lease suspensions that would be denied. ? Distinguish between exclusions for industrial rights of way (ROW) (e.g., transmission corridors) versus small ROW necessary for maintaining traditional land uses (e.g., water lines to serve livestock tanks), further described below. Limit or properly site industrial ROW in this defined exclusion and avoidance areas referenced in map 2-22 because they create visual impacts, fragment habitat, and disrupt migration corridors. We support the BLM's management of ROW Requests that limits development in the defined exclusion and avoidance areas referenced in map 2-22. | Management Actions analyzed under a range of alternatives for the 'Greater Little Mountain Area' can be seen in the DEIS Volume I Chapter 2.2.6 Management Actions 7418-7445 regarding the potential Greater Red Creek ACEC, and Management Actions 6540-6541 regarding the potential Little Mountain Area Special Recreation Management Area. |
| 835 - Special Designations–Management Areas (7300-7348) | #13915-2 | State and Private Land Implications When considering the effects of energy development in the GLMA, it is important to recognize that land ownership patterns could exacerbate fish and wildlife impacts from oil and gas development by focusing infrastructure in stream valley locations. Should No Surface Occupancy (NSO) stipulations be implemented on BLM lands, accessing underlying oil and gas resources would require directional drilling from State and private lands, which are predominantly located along streams (Figure 1). These valley bottoms and riparian zones are highly sensitive to surface disturbances, while also being rich habitat for both native trout and wildlife. For instance, the CRCT population in Currant Creek is almost entirely located on state lands where infrastructure would have to be located in order to potentially access nearby federal minerals. | Management Actions analyzed under a range of alternatives for the 'Greater Little Mountain Area' can be seen in the DEIS Volume I Chapter 2.2.6 Management Actions 7418-7445 regarding the potential Greater Red Creek ACEC, and Management Actions 6540-6541 regarding the potential Little Mountain Area Special Recreation Management Area. Uses of adjacent state owned lands are outside of the scope of the DEIS. |
| 835 - Special Designations–Management Areas (7300-7348) | #13915-3 | In considering the range of management options for oil and gas leasing within the GLMA and cumulative effects, we encourage the BLM to take into account land ownership patterns and how various stipulations could displace infrastructure to sensitive lands that are not managed by the BLM. In some instances, NSO stipulations may protect the BLM surface but would result in unavoidable deleterious impacts to fish and wildlife within the GLMA. In these situations, a decision to make these lands unavailable for leasing would be the only effective way to prevent impacts to fish and wildlife resources. | Management Actions analyzed under a range of alternatives for the 'Greater Little Mountain Area' can be seen in the DEIS Volume I Chapter 2.2.6 Management Actions 7418-7445 regarding the potential Greater Red Creek ACEC, and Management Actions 6540-6541 regarding the potential Little Mountain Area Special Recreation Management Area. |

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| 835 - Special Designations–Management Areas (7300-7348) | #13915-4 | Rights of Way Clarification Right of ways (ROW) are another issue that deserves greater consideration, including distinguishing between industrial ROW (e.g., transmission corridors) versus small ROW necessary for maintaining traditional land uses (e.g., water lines to serve livestock tanks). Within the GLMA, ROW exclusion is appropriate for new industrial-scale ROW. However, we encourage the BLM to consider the unintended consequences of ROW exclusion for small-scale infrastructure and existing traditional land uses and clarify that exclusions only apply to industrial new ROW. Trout Unlimited worked directly with the Ramsay Ranch to improve their irrigation infrastructure on BLM lands. This project stopped an active head cut allowed the ranch to maintain their water rights, allowed for fish passage, and improved trout habitat. BLM was a funder on this project. This project has a BLM ROW and would be in jeopardy if the Preferred Alternative were to be adopted for this management action. | See DEIS Volume I Glossary for updated definition of 'Right of Way'. |
| 835 - Special Designations–Management Areas (7300-7348) | #13915-12 | Management Recommendations (Management Action 7312) ? In the Salt Wells area, we support measures that will maintain fish, wildlife, and recreation values, including conformance with WGFD's "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitat," while also allowing for a greater degree of development than should be permitted elsewhere in GLMA. | See DEIS Volume I Chapter 2.2.6 Management Action 7312 for a full range of alternatives analyzed regarding potential retention of this management area. |
| 835 - Special Designations–Management Areas (7300-7348) | #13951-12 | Page 2-161; Special Designation #7303 "Analyze any increase in vegetative production, and if feasible, prioritize it for watershed stabilization and improvement, and wildlife forage, before considering it for livestock." -I oppose this! Why this outright discrimination against ranchers and livestock? | Management Action 7303 is specific to livestock operations within designated Special Management Areas. See Management Actions 7300-7348 for a full range of alternatives analyzed for these potential designations. |
| 835 - Special Designations–Management Areas (7300-7348) | #13974-3 | Failure to designate any SRMAs could increase user conflicts by placing recreators in the same places on the landscape, diluting the potential enjoyment for all recreators. For example, in the Red Desert, a camper may desire to camp at the only spring for 20 miles around, but that is also the only water for sage grouse, mule deer, or other species that rely on that area. With proper planning this conflict is easily avoidable; without these designations our ability to influence public behavior is diminished. | See DEIS Volume I Chapter 2.2.6 Management Actions 6521-6557 for a range of alternatives analyzed regarding potential designation of different Special Recreation Management Areas. |
| 835 - Special Designations–Management Areas (7300-7348) | #13974-4 | Pushing visitors to dispersed use poses challenges for protecting natural and cultural resources. Recreation use plans at designated SRMAs and for dispersed camping areas could help limit resource degradation, mitigate effects of increased visitation, and otherwise provide for natural and cultural resource protection. Alternative A calls for such plans in several Management Actions (6507-6510, at a minimum) and is the preferable alternative for this topic. | See DEIS Volume I Chapter 2.2.6 Management Actions 6521-6557 for a range of alternatives analyzed regarding potential designation of different Special Recreation Management Areas. |
| 835.01 - Red Desert Watershed Management Area | #13925-31 | Red Desert Western Portion RSGA notes that this proposed ACEC was considered in 1997 and as expanded in 2012. Visual resources alone are not basis for expansive ACEC Neither the Red Desert Eastern nor the Red Desert Western portions evaluated in the 1997 Green River RMP met the relevance and importance criteria and thus were not designated as an ACEC. However, BLM now states that all criteria are met, and more importantly, the BLM adds approximately 20,000 acres. It should also be noted that Sage- Grouse habitat, whether priority or general, largely overlaps crucial habitat for wintering mule deer and these areas are therefore already protected from disturbances under Wyoming Executive Order 2015-04 and the 2015 GrSG ARMPA. Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without expansive ACEC. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 835.02 - Pine Mountain Management Area | #548-1 | The BLM has admitted that the RMP draft is flawed. For example, the BLM has insisted that no roads would be closed by any of the Alternatives in the RMP draft, as a different plan will later be released to address this. However, Alternative B on page 2-166 of the RMP would mandate the following in the Pine Mountain area: "Prohibit motor vehicle use on public lands within the area, except for the protection of life and property. Apply a “no net gain in roads” in crucial habitats and consider seasonal road closures." This is a direct contradiction to what the BLM initially said | See range of alternatives for action #7323. Impacts from each alternative can be found in Chapter 4. |
| 835.02 - Pine Mountain Management Area | #13210-90 | 7312 Alternative A or D Alternative A: The area is not designated as an ACEC, but would be maintained as a geographic management unit (see Glossary). The Pine Mountain Management Area is not recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus would not need to receive the same management emphasis. Alternative D: Same as A Alternative A is preferred because it maintains the Pine Mountain Management Area at its current size. There is little potential for mineral (minable and liquid) development and the areas contains important wildlife resources. | See DEIS Volume I Chapter 2.2.6 Management Action 7312 for a full range of alternatives analyzed regarding potential retention of the Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13210-91 | 7313 Alternative A The Pine Mountain area would be managed as an avoidance area for rights-of-way and surface disturbing activities. This management action was voted on as a block (7313- 7315). The task force prefers Alternative A, which aligns with the work of the Greater Little Mountain Coalition. | See DEIS Volume I Chapter 2.2.6 Management Action 7313 for a full range of alternatives analyzed regarding Rights of Way and surface disturbing activities in the potential Pine Mountain Management Area. |

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| 835.02 - Pine Mountain Management Area | #13210-92 | 7314 Alternative A The area is open to mineral leasing and related exploration and development activities with appropriate mitigation requirements (CSU) applied to protect all other resource values. This management action was voted on as a block (7313- 7315). The task force prefers Alternative A, which aligns with the work of the Greater Little Mountain Coalition. | See DEIS Volume I Chapter 2.2.6 Management Action 7314 for a full range of alternatives analyzed regarding mineral leasing in the potential Pine Mountain Management Area |
| 835.02 - Pine Mountain Management Area | #13210-93 | 7315 Alternative A Livestock grazing objectives and management practices would be re-evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems would be designed to achieve desired plant communities and PFC of watersheds (upland and riparian) (Appendix G). This management action was voted on as a block (7313- 7315). The task force prefers Alternative A, which aligns with the work of the Greater Little Mountain Coalition. | See DEIS Volume I Chapter 2.2.6 Management Action 7315 for a full range of alternatives analyzed regarding livestock grazing in the potential Pine Mountain Management Area |
| 835.02 - Pine Mountain Management Area | #13210-94 | 7316 Alternative D No similar action (see Livestock Grazing Management, Water Resources, and Riparian and Wetland Resources sections) Alternative D was preferred over Alternative A because it does not prohibit activity that impacts a PFC. | See DEIS Volume I Chapter 2.2.6 Management Action 7316 for a full range of alternatives analyzed regarding stream quality in the potential Pine Mountain Management Area |
| 835.02 - Pine Mountain Management Area | #13210-95 | 7317 Alternative D No similar action (see actions common to all management areas 7300-7304) Alternative D was preferred over Alternative A because it does not require that any increase in vegetation production would be reserved for watershed stabilization and improvement purposes. | See DEIS Volume I Chapter 2.2.6 Management Action 7317 for a full range of alternatives analyzed regarding vegetative production in the potential Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13210-96 | 7318 Alternative A Management of habitat for Special Status Species, if identified, would be developed on a case-by-case basis. Alternative A is preferred because it allows for case-by- case decision making. Absence of funding for a habitat management plan/implementation made Alternative A the best choice. | See DEIS Volume I Chapter 2.2.6 Management Action 7318 for a full range of alternatives analyzed regarding special species management in the potential Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13210-97 | 7321 Alternative C Determine VRM classes by the Visual Resource Inventory and management direction for the individual locations as appropriate. Alternative C is preferred because it provides for individual location decisions for VRM management as appropriate. An existing ROW corridor runs through this area already and transmission towers have already been installed. Alternative C ensures ROW access would remain open. | See DEIS Volume I Chapter 2.2.6 Management Action 7321 for a full range of alternatives analyzed regarding visual resource management in the potential Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13210-98 | 7324 Alternative A The area is open to consideration of activities that conform with objectives for the area. Such activities may include fencing, interpretive signs, transportation or other use barriers, and sediment or erosion control structures to meet resource management objectives. Any actions to be conducted in the Pine Mountain Area would be considered and analyzed on a case-by-case basis. Controls may be placed on the amount, sequence, timing, or level of activity or development that may occur to assure that the actions would be consistent with or help to meet the management objectives for the area. This may result in such things as limiting the number of roads and other construction or other surface disturbing activities (such as well pads) or deferring activities or development in some areas until other areas have been reclaimed and restored to previous uses (Appendix I). Alternative A is preferred because it allows for consideration of activities that conform with management objectives for the area. | See DEIS Volume I Chapter 2.2.6 Management Action 7324 for a full range of alternatives analyzed regarding habitat protection in the potential Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13210-99 | 7329 Alternative D Retain the area as a management area (Table 2-12, Appendix V and Map 2-32). Alternative D is preferred because it retains the area without the additional recommendations in Alternative A. | See DEIS Volume I Chapter 2.2.6 Management Action 7329 for a full range of alternatives regarding potential designations for the Sugarloaf Basin Management Area. |
| 835.02 - Pine Mountain Management Area | #13915-11 | Pine Mountain Management Area The Pine Mountain Area is presently a designated management area in the Green River Resource Management Plan due to significant fish and wildlife habitat, along with important groundwater recharge areas. The updated RMP should provide a high level of protection for big game and fisheries resources. Management Recommendations (Management Actions 7313, 7314, 7325, 7326, 7327, and 7328) ? At a minimum, NSO for 14,982 acres ? CSU for 2,513 acres At a minimum, the Coalition recommends NSO of 14,982 acres in the Pine Mountain area to protect groundwater recharge areas, crucial big game habitat and parturition areas and important Colorado River cutthroat trout (CRCT) habitat. Outside of the proposed NSO, the Coalition recommends 2,513 acres of CSU stipulations, utilization of mandatory best management practices, implementation of a phased development scenario and mandatory reclamation standards prior to more development. Additional recommendations for mineral management include directional drilling from a minimal number of well pads and implementing the Wyoming Game and Fish Department's "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitat."1 | See DEIS Volume I Chapter 2.2.6 Management Actions 7312-7328 for a full range of alternatives analyzed regarding potential designations of the Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13923-2 | The Jack Morrow Hills CAP established a process for implementation, monitoring and evaluation of the plan's management in Appendix 2 (JMH CAP, A2-1, 2006). Baseline and indicator data were to be collected for monitoring and mitigation measures were to have been developed for plan decisions and management actions that could be evaluated to determine if objectives were being met. Sportsmen request that the BLM review whether these data were collected, cataloged, reviewed, and evaluated. If they were not completed and/or if they need | See DEIS Volume I Chapter 2.2.6 Management Actions 7305-7311 for a range of alternatives analyzed regarding the Red Desert Watershed Management Area. Monitoring data is available at the Rock Springs Field Office. |

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| | | additional evaluation and review, the BLM needs to make this a priority. The Final Rock Springs RMP should incorporate these processes with the findings of the baseline and indicator data as well. | |
| 835.02 - Pine Mountain Management Area | #13923-5 | At a minimum, the Coalition recommends NSO of 14,982 acres in the Pine Mountain area to protect groundwater recharge areas, crucial big game habitat and parturition areas and important Colorado River cutthroat trout (CRCT) habitat. Outside of the proposed NSO, the Coalition recommends 2,513 acres of CSU stipulations, utilization of mandatory best management practices, implementation of a phased development scenario and mandatory reclamation standards prior to more development. Additional recommendations for mineral management include directional drilling from a minimal number of well pads and implementing the Wyoming Game and Fish Department's "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitat." | See DEIS Volume I Chapter 2.2.6 Management Actions 7312-7328 for a full range of alternatives analyzed regarding potential designations of the Pine Mountain Management Area. |
| 835.02 - Pine Mountain Management Area | #13923-6 | The entire Greater Little Mountain Area is incompatible with oil shale extraction and should be an oil shale withdrawal area. | Please see Glossary definition of 'withdrawal', which does not apply to leasable minerals. The existing 'oil shale withdrawn area' is for the protection of oil shale development from the 1872 Mining Law minerals. Management Actions analyzed under a range of alternatives for the 'Greater Little Mountain Area' can be seen in the DEIS Volume I Chapter 2.2.6 Management Actions 7418-7445 regarding the potential Greater Red Creek ACEC. |
| 835.02 - Pine Mountain Management Area | #13923-7 | For portions of the Greater Little Mountain Area, sportsmen are requesting ROW exclusion. The impetus for this is to limit industrial scale projects that could do potential environmental harm by disrupting sensitive soils. The ROW exclusion should not, however, impact small scale agricultural operations who are in good standing with the BLM. These small operations should not be in the same category as industrial scale transmission lines, pipelines, and roads, etc. We encourage the BLM to revisit the Rights-of-Way policy to differentiate between industrial scale and small scale operations. | Management Actions analyzed under a range of alternatives for the 'Greater Little Mountain Area' can be seen in the DEIS Volume I Chapter 2.2.6 Management Actions 7418-7445 regarding the potential Greater Red Creek ACEC, and Management Actions 6540-6541 regarding the potential Little Mountain Area Special Recreation Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13210-100 | 7330 Alternative B Manage the Sugarloaf Basin portion (87,240 acres; Map 2-30) as an exclusion area for rights-of- way and surface disturbing activities, unless the purpose of the activity is to benefit the resource objectives for the management area. Alternative B is preferred because it will manage the Sugarloaf Basin portion as an exclusion area for ROW and surface disturbing activities. There exists little to no oil and gas or mineral development potential in the area. | See DEIS Volume I Chapter 2.2.6 Management Action 7330 for a full range of alternatives analyzed regarding surface disturbing activities in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13210-101 | 7331 Alternative D Allow surface disturbing activities if the operator and the BLM arrive at an acceptable plan for avoidance, minimization, rectification, and/or restoration within the Sugarloaf Basin area. The purpose of the plan is to ensure that fluid mineral development activities are pursued in a manner that maintain habitat function and result in no significant declines in species distribution or abundance. The BLM will consult with the WGFD to evaluate the adequacy of the conservation plan prior to finalization. Alternative D is preferred because it is the only alternative that states that the BLM will consult with the WGFD to evaluate the adequacy of the conservation plan prior to finalization. | See DEIS Volume I Chapter 2.2.6 Management Action 7331 for a full range of alternatives analyzed regarding surface disturbing activities in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13210-102 | 7332 Alternative D No similar action (see Common to All Resources section) Alternative D was preferred over Alternative A which states that any increase in vegetation would be reserved for watershed stabilization and improvement purposes. | See DEIS Volume I Chapter 2.2.6 Management Action 7332 for a full range of alternatives analyzed regarding vegetative production in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13210-103 | 7333 Alternative A Management of habitat or Special Status Species, if identified, would be developed on a case-by-case basis. Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas would apply (see Wildlife section and Appendix J). Exceptions to this restriction may be approved if conditions and criteria described in Appendix B. Alternative A is preferred because the task force found no need to deviate from the status quo. | See DEIS Volume I Chapter 2.2.6 Management Action 7333 for a full range of alternatives analyzed regarding special status species and their habitat in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13210-104 | 7334 Alternative A The area would be managed consistent with the Class II and Class III VRM classifications. Alternative A is preferred because it includes limitations on VRM classifications and obstructing the scenic view. | See DEIS Volume I Chapter 2.2.6 Management Action 7334 for a full range of alternatives analyzed regarding visual resources in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13210-105 | 7335 Alternative A Recreation developments would be kept to a minimum and designed primarily for the protection of resource values, the prevention of resource damage, and for public health and safety. Alternative A is preferred because the task force found no need to deviate from the status quo. | See DEIS Volume I Chapter 2.2.6 Management Action 7335 for a full range of alternatives analyzed regarding developed recreation in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13908-31 | 7331 D Allow surface disturbing activities if the operator and the BLM arrive at an acceptable plan for avoidance, minimization, rectification, and/or restoration within the Sugarloaf Basin area. The purpose of the plan is to ensure that fluid mineral development activities are pursued in a manner that maintain habitat function and result in no significant declines in species distribution or abundance. The BLM will consult with the WGFD to evaluate the | See DEIS Volume I Chapter 2.2.6 Management Action 7330-7331 for a full range of alternatives analyzed regarding surface disturbance and rights of way in the potential Sugarloaf Basin Management Area. |

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| | | adequacy of the conservation plan prior to finalization. We recommend the Sugarloaf Basin Management Area include NSO protections. | |
| 835.03 - Sugarloaf Basin Management Area | #13911-6 | Similarly, during the development of the Green River RMP, Sugarloaf Basin was found to "not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in the area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus does not need to receive the same management emphasis. The watershed, scenic, and wildlife resources are determined to be neither more than locally significant nor fragile, sensitive, or rare, when compared to those values found in Currant, Sage, and Red Creeks." Id. at 2-168 (Mgmt. Action #7329) (emphasis added). Under the Green River RMP, the Sugarloaf Basin was only a management area. Id. The BLM provides no explanation or analysis indicating what has changed in the area to now warrant an ACEC designation when it so clearly did not meet the relevant and important criteria in the past. See id. at Appendix C-15 - C-16. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 835.03 - Sugarloaf Basin Management Area | #13915-6 | Management Recommendations (Management Action 7330): ? No Surface Occupancy (NSO) For Sugarloaf Basin ? Rights-Of-Way (ROW): Upgrade Sugarloaf Basin SMA from avoidance to exclusion for industrial ROW. | See DEIS Volume I Chapter 2.2.6 Management Action 7330 for a full range of alternatives analyzed regarding surface disturbance and rights of way in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13927-4 | Recommended Management for Specific Geographies within the GLMA Sugarloaf Basin Special Management Area Movement data from big game collared as part of the University of Wyoming's Deer-Elk Ecology Research indicates that Sugarloaf Basin provides high-value habitat for wintering deer and elk. Pronghorn antelope are also found in this area, and a portion of the SMA is designated Greater sage-grouse core habitat while other portions contain habitat for midget-faded rattlesnakes, a sensitive species in Wyoming. The SMA provides a significant Utah juniper habitat complex, supporting an assemblage of juniper-obligate mammal and bird species. It is also a known groundwater recharge area providing local aquifers important water supplies for plants, springs, and streams in the area. The addition of roads (from energy development activities) can create hard surfaces that prevent rain and snow from soaking back into the ground and replenishing these valuable groundwater recharge zones. From a fisheries standpoint, the Marsh Creek complex flows directly into the Flaming Gorge Reservoir, and the sensitivity of this area to erosion means that these creeks could be significant contributors to sedimentation and siltation of the reservoir. | See DEIS Volume I Chapter 2.2.6 Management Actions 7329-7335 for a full range of alternatives analyzed regarding management in the potential Sugarloaf Basin Management Area. |
| 835.03 - Sugarloaf Basin Management Area | #13943-8 | From a fisheries standpoint, the Marsh Creek complex flows directly into the Flaming Gorge Reservoir, and the sensitivity of this area to erosion means that these creeks could be significant contributors to sedimentation and siltation of the reservoir. Management Recommendations (Management Action 7330): * No Surface Occupancy (NSO) For Sugarloaf Basin * Rights-Of-Way (ROW): Upgrade Sugarloaf Basin SMA from avoidance to exclusion for industrial ROW. | See DEIS Volume I Chapter 2.2.6 Management Actions 7329-7335 for a full range of alternatives analyzed regarding management in the potential Sugarloaf Basin Management Area. |
| 835.04 - Pinnacles Geographic Area | #13925-30 | Only 1,344 acres includes the actual Pinnacles Geologic feature yet BLM designates 8,960 acres as an ACEC to protect the pinnacles. RSGA questions this expansion when the visual resource is limited to a discrete geologic feature - not the larger watershed area. Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without sweeping ACECs. It should also be noted that Sage- Grouse habitat, whether priority or general, largely overlaps crucial habitat for wintering mule deer and these areas are therefore already protected from disturbances under Wyoming Executive Order 2015-04 and the2015 GrSG ARMPA. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 835.06 - Monument Valley Management Area | #13769-2 | While we wholeheartedly agree with the intent of the Monument Valley OMA, we are concerned that the private lands inholdings will make management of an OMA unworkable. We are unsure of the conservation goals and management options of O MAs. Protecting the Adobe Town WSA is of paramount importance. The Monument Valley OMA as proposed in Alternative B overlaps the WSA (RMP map 2-29) and encompasses so much private land that based on our experiences an OMA in Monument Valley would become an untenable management nightmare. | See DEIS Volume I Chapter 2.2.6 Management Actions 7340-7348 for a range of alternatives regarding potential designation and management for Monument Valley Management Area. |
| 835.06 - Monument Valley Management Area | #13769-3 | It seems to us that Monument Valley in S3, T14N, R97W is a great place to start protecting the Adobe Town WSA. A proper buffer would provide such protection; it would extend from Monument Valley in a north-westerly arc roughly covering Adobe Town Rim, then extend northerly to Manuel Gap, then to the north-east trending arc covering the Haystacks. (shown on BLM 1:100,000 map, Kinney Rim) This buffer would involve an exchange of approximately 22 sections of land. We urge the BLM to pursue such an exchange. | See DEIS Volume I Chapter 2.2.6 Management Actions 7340-7348 for a range of alternatives regarding potential designation and management for Monument Valley Management Area. |
| 835.06 - Monument Valley Management Area | #13911-7 | The BLM previously concluded that "[a]lthough the Monument Valley area has unique scenic features and has the apparent high potential for significant cultural and paleontological resources, there has been little systematic inventory of these features and resources. This lack of information precludes identification of specific resources that meet the ACEC relevance and importance criteria for designation of ACECs." Id. at 2-171. In Appendix C, the BLM does not describe any new inventory of "significant cultural and paleontological resources" and instead bases the ACEC designation on the qualities associated with the Adobe Town Wilderness Study Area ("WSA"). Id. at | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. Wilderness Study Areas are designated by congress and may be changed at any time, and are outside of the scope of this DEIS. |

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| | | Appendix C-26. The DEIS fails to explain why the Checkerboard lands to the north of the WSA warrant ACEC designation or why the WSA designation is insufficient to protect the resources of concern | |
| 835.06 - Monument Valley Management Area | #13925-26 | The 1997 Green River RMP deferred any findings but did identify only 69,940 acres as a potential ACEC. Thus, BLM's increase of approximately 30,000 acres is extremely concerning and must be disclosed and further analyzed. Raptor nesting sites, alone, do not constitute a regionally or nationally important resource. The BLM must analyze and disclose what type of raptors use the cliffs, in which areas, and at what times. The BLM may not extrapolate from an isolated occurrence the further and widespread presence of raptors or their national significance. There is no indication that these features are in jeopardy or require special management. Although they may be scenic, the purposes of the ACEC should not be to restrict uses that will not interfere with the resource. Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without expansive ACEC designation. The Sage-Grouse habitat, whether priority or general, largely overlaps crucial habitat for wintering mule deer and these areas are therefore already protected from disturbances. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #302-1 | Alternative B classifies over 1.8 million of the 3.6 million acres of land in the Rock Springs management area as Areas of Critical Environmental Concern (ACEC), which is an increase of ACEC designation of over 1.3 million acres from the current Rock Springs RMP. The ACEC designation will effectively prohibit energy development, and primarily development of the mineral estate, on over 50% of the resource management area. This prohibition will negatively impact the State of Wyoming through loss of the State's portion of federal mineral royalties as well as increasing our nation's dependence on foreign or unreliable and unproven energy sources. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #531-2 | Also, prescriptive management in the form of targeted management would be the most effective management that doesn't severely impact large areas of land. For example, Steamboat Mountain ACEC should be managed for targeted areas of interest, not simply increasing the size of the ACEC acreage by ten-fold. | See DEIS Chapter 2.2.6 management Actions 7516-7529 for a full range of alternatives analyzed regarding Steamboat Mountain ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #531-3 | The preferred alternative almost doubles the number of ACEC designations, as well as triples the total number acres for these special designated areas. There is no question that natural resources need to be managed carefully and wisely, but we cannot do so at the expense of our state's cornerstone industries in the process. This increase in ACEC's will also require an increase in BLM staffing for adequate enforcement of such large swaths of land protection. The triple in acreage under ACEC protective measures should honor prior and existing rights for the agricultural community, among other users of federal lands. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #539-3 | The next ACEC issue is that the South Wind River ACEC and the Big Game Migration Corridor ACEC likely violate PRIA and the TGA. As noted above, the congressional intent of PRIA is to "prevent economic disruption and harm to the western livestock industry." The TGA created grazing districts (which FLPMA specifically kept in existence) and the Secretary has already deemed that these districts are "chiefly valuable for grazing," meaning that the primary purpose of the lands in these districts are for livestock grazing, even over other purposes such as wildlife, conservation, plant habitat, etc. | See DEIS Chapter 1.4 'Planning Criteria' of the DEIS states the legality of the contents of the DEIS. See DEIS Chapter 2.2.6 Management Actions 7538-7547 for a range of alternatives analyzed regarding the South Wind River ACEC and management actions 7555-7562 for a range of alternatives analyzed regarding the Big Game Migration Corridor ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #539-4 | Appendix N of Volume 2 outlines the economic analysis of the plan. However, this analysis is lacking and has failed to take a "hard look" at what economic disruption the management prescriptions in this plan would have on the livestock industry. For example, as discussed supra, grazing could be reduced by 20% in riparian areas within the ACEC if the BLM determines an allotment is not meeting the BLM's rangeland health standards, or due to restrictions related to the ACEC itself, AUMs or rangeland improvement projects could be hamstrung which could significantly affect our grazing operations and these kinds of affects were not looked into under Alternative B. We attest that significant reductions in AUMs would run our operation out of business and a further economic analysis should be done under the circumstances presented under Alternative B. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #539-5 | Wind River Front West: Historic: Buckskin Crossing Cemetery. Wildlife: big game crucial winter range, big game parturition, designated Sublette mule deer migration corridor. Special Status Species: sage-grouse PHMA, bluehead sucker, flannelmouth sucker, round-tail chub, limber pine. South Wind River: Cultural: NHT. Wildlife: big game crucial winter range, designated Sublette mule deer migration corridor. Special Status Species: sagegrouse PHMA, bluehead sucker, flannelmouth sucker, and round-tail chub. Paleontological resources: middle Eocene fossil resources. Scenic: panoramic landscape. Big Game Migration Corridor: Cultural: NHT. Wildlife: designated Sublette mule deer migration corridor, big game crucial winter range, big game parturition. Special Status Species: sagegrouse PHMA.25 These values should not result in the heightened scrutiny of an ACEC designation for the following reasons. First, when the BLM is seeking to protect the historic and cultural values mentioned such as historic trails, cemeteries, etc., it seems extraordinarily arbitrary and capricious to designate a vast 374,710 acre land restriction rather than to make a small- targeted--ACEC for each of these areas. Or by contrast there could be specific protections through management prescriptions offered for these cultural and historic resources by simply putting guidelines for these specific resources in this RMP. Furthermore, having surface disturbance restrictions near trails such as NHT or CDNST to the tune of having multiple miles of buffer is an incredibly broad amount of land needed to "protect and prevent irreparable damage" to an area. | See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. See DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. |

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| 836 - Special Designations–ACECs (7400-7570) | #539-6 | Next, with regard to wildlife, the BLM should remember that the State of Wyoming is responsible for management of its wildlife in this jurisdiction. While the BLM does have a responsibility to manage the landscape, one would think that before designating vast ACECs, the BLM would seek whether the Wyoming Game and Fish Department would think it was a good concept. For example, it was the State of Wyoming, after all, that designated the sublette mule deer migration corridor. In doing so, the State's report noted that "[m]aintaining the integrity of ranching operations will benefit the continued movement of animals across the landscape, and consequently efforts to conserve ranches within the migration corridor will conserve the corridor itself."26 Additionally, if an ACEC can be designated to protect big game populations and their accompanying corridors, then the entire western United States could be designated as one big ACEC. Therefore, LSGA requests that this line of reasoning for designation either removes the ACEC or sets aside specific exceptions to allow for continued livestock grazing as it has been done along with rangeland improvements. By the BLM's own analysis, rangeland improvement projects benefit wildlife.27 | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Chapter 2.2.6 Management Actions 6400-6417 for a full range of alternatives analyzed related to livestock grazing. |
| 836 - Special Designations–ACECs (7400-7570) | #539-8 | Ultimately, Congress intended for the BLM to only use ACECs to "protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." Livestock grazing in Wyoming has been going on since the mid-1800s.29 Before that, bison and wildlife have always grazed the landscape.30 To think that livestock grazing could create irreparable damage to the landscape is not only arbitrary and capricious, but ahistorical. Because of this, we ask the BLM to rescind the Big Game Migration Corridor ACEC and the South Wind River ACEC. If the BLM will not do that, we at least ask that livestock grazing be given exceptions to strict management protocols that would restrict our livestock operations and would restrict surface disturbance activities related to livestock grazing. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #539-15 | Under the Special Designations section, specifically as it relates to ACEC MAs, LSGA sees a number of troubling management prescriptions. First, we would attest that MA 7402 would violate the TGA because the BLM is prioritizing watershed stabilization/improvement and wildlife over grazing. We similarly argue that MA 7414 & 7423 would also violate the TGA for the same reason. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Chapter 1.4 'Planning Criteria' of the DEIS states the legality of the contents of the DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #540-1 | It must also be noted that, to the extent BLM relies on the Consent Decree of 2013 as justification for planning wild horse management and livestock grazing as part and parcel of one another, the 2013 Consent Decree has expired and is no longer in effect. The 2013 Consent Decree should not be considered by BLM when selecting locations to be designated as ACECs. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #540-3 | BLM should also consider the benefits to the range by limiting livestock grazing in the ACECs and the planning area, allowing for thriving wild horse populations that are highly beneficial to the rangeland.17 Studies demonstrate that equids support healthy ecosystems on public land if given sufficient habitat and left alone (Lundgren et al., 2021; Lundgren et al., 2017; Downer 2014). Wild horses spread plant seeds over large areas where they roam and do not decompose the vegetation they ingest as thoroughly as ruminant grazers, such as cattle or sheep, allowing the seeds pass through their digestive tract intact into the soil fertilized by wild horse droppings. Wild horses also help to prevent catastrophic fires and help to build more moisture-retaining soils. Soil moisture dampens out incipient fires and makes the air coating the earth moister. | See DEIS Chapter 3.9 'Wild Horses and Burros' and associated document, Record of Decision for Wild Horse Management in the Rawlins and Rock Springs Field Offices. |
| 836 - Special Designations–ACECs (7400-7570) | #540-4 | As noted in the RMP/EIS, another primary issue BLM intends to address is areas in the planning area which may be utilized for "[r]enewable energy development and associated transmission infrastructure" and "[e]nergy and minerals development."20 While drilling and energy exploration is allowed in some of the proposed ACECs, BLM should support the underlying goal of creating locations for ACECs for the protection and preservation of areas that have "significant" cultural, scenic, wildlife, recreational, biodiversity, paleontological, historic, and geologic values.21 Mining, drilling, and other forms of energy exploration, and the construction of related facilities and infrastructure, are often the antithesis of the protection and preservation that is the goal of creating ACECs. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. |
| 836 - Special Designations–ACECs (7400-7570) | #541-1 | Under 43 C.F.R. § 1610.7-2(b)1, the BLM's State Director "shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitation, if any, which would occur if it were formally designated". The Federal Register announcing the proposed designations2 contains nothing more than an ACEC name, acreage, and a list of vague significant values for the 16 proposed ACECs and over 1.8 million acres of potentially impacted public lands. No member of the public will be able to see what public land resource use will be constrained, if any. This is a considerable oversight on the part of the BLM. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs, including all possible use limitations. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #541-2 | I have made my disapproval of the hastily constructed and uncooperative Preferred Alternative B well known. It appears that the handling of ACECs in this draft RMP is no different. While some additional information can be found on the proposed ACECs in the 1350 pages of the draft RMP/EIS, the BLM has already publicly walked back sections of the draft that were included by mistake3. If the public cannot trust what is written in the draft RMP, how are they supposed to make informed, substantive comments on proposed ACEC designations given the extremely limited information included in the Federal Register? | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs, including all possible use limitations. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations– | #541-3 | This rushed process makes the BLM seem disingenuous and is detrimental to Wyoming people and is unique to the Rock Springs RMP. For example, the August 4, 2023 Federal Register4 included a notice of availability for the draft RMP/EIS for the Colorado River Valley Field Office and Grand Junction Field Office RMP. Their nine | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs, including all possible use limitations. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |

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| ACECs (7400-7570) | | proposed ACECs, covering 69,400 acres of additional designation (a differentiation not made in the Rock Springs RMP) contained at least a basic description of the resource use restrictions. For ACECs covering an area over 26-times larger than Colorado's draft RMP, the BLM is treating Wyoming differently by not including this essential information in the Federal Register, referring the public to an admittedly flawed draft RMP, and yet still expects the public and concerned state agencies to respond with substantive comments. Additional and recent examples of more detailed ACEC proposals accompanying draft RMPs in the Federal Register can be found with the notices of availability for the Draft RMP/EIS for the Grand Staircase-Escalante National Monument in Utah5 and the draft RMP/EIS for the Redding and Arcata Field Offices in California6. | |
| 836 - Special Designations–ACECs (7400-7570) | #550-7 | BLM's proposed designation of vast Areas of Critical Environmental Concern (ACECs) causes much of the decrease in lands available for leasing and infrastructure. But FLPMA reserves ACECs for lands in need of special management attention to protect important and relevant resource values. Relevance requires the presence of significant historic, cultural, scenic, wildlife, or other natural systems, and importance requires qualities of more than local significance, i.e., special worth, consequence, meaning, distinctiveness, or cause for concern. In the past, the BLM has taken a scrupulous and careful approach to designating ACECs, rooted in the evaluation of the aforementioned values present in an area potentially subject to ACEC designation. The BLM does not support its proposal to vastly expand ACECs to cover broad landscapes, particularly where the resources in need of special management (i.e., wildlife habitat, bird areas, or presence of historic trails) are found throughout the RMP area and have been successfully managed under the existing plan for decades. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #4026-21 | Map 2-30: Special Designations and Management Areas - Alternative B. Appendix C.11 (Monument Valley ACEC Evaluation) describes the features within the unit that warrant ACEC designation. I feel all the factors described for that area also carry over to the approximately 12,000 contiguous acres in the Haystack Wash area. This area is also contained within the Adobe Town Wilderness Study Area. I would not be surprised that a future RMP update for the Rawlins District will look at that district's adjacent Adobe Town lands for ACEC designation. Exclusion of the Haystack Wash tract in the Rock Springs District could ultimately result in an island on non-ACEC lands surrounded by a greater Adobe Town ACEC and therefore pose management issues. I recommend the entire Haystack Wash area within the Adobe Town WSA also be included in the Monument Valley ACEC. | See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #10494-5 | ACEC designations have previously appropriately been applied to relatively small parcels of land in the Resource Area that have unique features or provide unique services that require special management actions. It is inconsistent with the intent and purpose of such designation to apply it to vast acreages as is proposed in several alternatives. WSGA urges that no new designations be made at this time and that large existing ACEC designations, in particular Greater Red Creek, Greater Sand Dunes, and Steamboat Mountain, be carefully reviewed to determine whether they should be continued, and, if continued, whether their objective could be met with reduced acreages. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #10494-7 | WSGA urges BLM to reject any alternative that maintains Jack Morrow Hills as a distinct management area. This extensive area of 622,000 acres incorporates several other areas with appropriate special designations. The JMH designation only confuses management of these more narrowly defined areas of special significance. | See DEIS Volume I Map 3-20: Jack Morrow Hills for a visual of areas included in the lands referred to as 'Jack Morrow Hills'. |
| 836 - Special Designations–ACECs (7400-7570) | #13064-9 | The Committee is greatly concerned with Alternative B increasing ACEC by 460%.60 There is no evidence to support a 460% increase in ACEC in the draft Rock Springs RMP. Alternative B is simply increasing areas to "protect important historic, cultural, wildlife and scenic values" while negatively impacting multiple use of these lands. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13064-10 | Alternative B would designate a new ACEC called the Big Game Migration Corridor ACEC.63 This ACEC would contain significant portions of the Red Desert to Hoback migration corridor.64 The Committee heard testimony from Wyoming's Game and Fish Department at our meeting on October 6, 2023 that Alternative B's inclusion of the Red Desert to Hoback migration corridor within the ACEC would be detrimental to the Wyoming Game and Fish Department's management of wildlife populations within the migration corridor. The Committee stands by the hard work the Wyoming Game and Fish Department has put into migration corridors | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13210-21 | 21. The task force does not support any special management area designations within the checkerboard except for existing Cedar Canyon and Natural Corrals, and Special Status Plant Species ACEC. The task force does recognize the importance of wildlife migration and winter range within the checkerboard. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13210-22 | 22. The majority of the task force has grave concerns about the adoption of new or expanded ACECs in Alternative B, because of the potential negative impacts these ACECs could have on the economy, customs, and culture in SW Wyoming. The task force did not have time to develop nuanced approaches to the management in these proposed ACECs or propose different management designations. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations– | #13287-36 | We would like to see the protections of ACEC designations extended to the Kinney Rim North and South Citizen Proposed Wilderness areas as well. This area provides habitat for desert elk, is home to a wild horse HMA popular | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |

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| ACECs (7400-7570) | | with the wild-horse-viewing public, and contains large tracts of undeveloped sage grouse habitats important to sagebrush obligate species. | |
| 836 - Special Designations–ACECs (7400-7570) | #13287-37 | We support the Sugarloaf Basin, Currant Creek, and Sage Creek portions of the Red Creek ACEC (see DEIS at 2-168), and they could be combined into a single Little Mountain ACEC. This is an important area for Colorado River cutthroat trout conservation. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13287-39 | The statement for the Monument Valley Management Area under Alternative A, arguing that a determination cannot presently be made that the area meets relevance and importance criteria (DEIS at 2-171), is nonsensical. This area was designated Very Rare or Uncommon by the State of Wyoming, whose criteria for designation are essentially the same as BLM relevance and importance criteria for ACEC designation (Attachment 18). A viewshed analysis was performed, illustrating that all lands in the MVMA, plus excluded portions of Adobe Town WSA (which deserve to be included in the ACEC) are critical to the scenic viewshed of the area. This designation was the result of a comprehensive review of abundant data and testimony from leading scientists and artists (see, e.g., Attachment 18). | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13287-41 | A second unit of this ACEC should be designated west of US Highway 191 to protect the Path of the Pronghorn migration route along known and documented satellite collar migrations as far south as Interstate 80. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13330-13 | * MA # 7418: Sweetwater County Farm Bureau prefers Alternative C. Sweetwater County Farm Bureau opposes the expansion of the Greater Red Creek ACEC. (page 2-177). This expansion would place additional restrictions on private landowners within the ACEC. | See DEIS Volume I Chapter 2.2.6 Management Actions 7418-7430 for a full range of alternatives analyzed related to the Greater Red Creek ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13330-15 | MA # 7438: Sweetwater County Farm Bureau prefers Alternative C. Sweetwater County Farm Bureau is opposed to the prohibition of grazing in Jane's Meadow and Upper Currant Creek Pastures within the Sugarloaf Grazing Allotment. (page 2-182). This management action does not state the reasoning to close this area to grazing. Is it being recommended for closure due to land health standards not being met or is this recommended closure arbitrary? | See DEIS Volume II Chapter 2.2.6 Management Action 7438 for a full range of alternatives analyzed regarding grazing in the Currant Creek portion of the Greater Red Creek ACEC. See DEIS Volume II Appendix C.3 for the ACEC evaluation of this area. |
| 836 - Special Designations–ACECs (7400-7570) | #13330-16 | MA # 7443: Sweetwater County Farm Bureau prefers Alternative C. Sweetwater County Farm Bureau is opposed to the prohibition of grazing in the Red Creek Allotment. (page 2-184) This management action does not state the reasoning to close this area to grazing. Is it being recommended for closure due to land health standards not being met or is this recommended closure arbitrary? | See DEIS Volume II Chapter 2.2.6 Management Action 7438 for a full range of alternatives analyzed regarding grazing in the Red Creek portion of the Greater Red Creek ACEC. See DEIS Volume II Appendix C.2 for the ACEC evaluation of this area. |
| 836 - Special Designations–ACECs (7400-7570) | #13412-2 | The Red Desert to Hoback migration corridor spans 150 miles and crosses private land, state trust land, United States National Forest land, and public land managed by the BLM. This migration corridor is the longest known mule deer migration corridor in the United States and is traveled by approximately 5,000 deer biannually. Alternative B would designate a new ACEC called the Big Game Migration Corridor ACEC. This ACEC would contain significant portions of the Red Desert to Hoback migration corridor. As I am following the the Select Committee on Federal Natural Resource Management (Committee) of the Wyoming Legislature, the Committee heard testimony from Wyoming's Game and Fish Department at our meeting on October 6, 2023 that Alternative B's inclusion of the Red Desert to Hoback migration corridor within the ACEC would be detrimental to the Wyoming Game and Fish Department's management of wildlife populations within the migration corridor. I support the hard work the Wyoming Game and Fish Department has put into migration corridors. I am committed to conserving these vital migration corridors to help maintain wildlife populations. I believe that designating migration corridors within ACEC is not in the best interest of the state or the wildlife. | See DEIS Volume I Chapter 2.2.6 Management Actions 7555-7562 for a full range of alternatives analyzed regarding the potential designation of the Big Game Migration Corridor ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13515-1 | RMEF is very supportive of active management on our public lands to benefit wildlife habitat and fire risk management. Executing active forest management techniques such as prescribed burns, thinning, and other treatments helps prevent catastrophic wildfires and assists in long-term ecosystem resilience. In addition, managing natural ignitions can help achieve fuel and vegetation goals. RMEF expresses concern about vegetation and timber management restrictions that would be in place following implementation of several Areas of Critical Environmental Concern (ACEC). The draft Plan components lack clarity as to desired conditions for timber production or vegetation management that would support vegetation diversity and heterogeneous vertical structure. As-is, priority would be given to activities that protect, rather than conserve and manage vegetative conditions. | See DEIS Volume I Chapter 3.19 'Forestry and Woodlands' for description of existing conditions of these areas. See DEIS Volume 1 Chapter 2.2.6 Management Actions 3000-3013 for a full range of alternatives analyzed regarding Fire and Fuels Management. |
| 836 - Special Designations–ACECs (7400-7570) | #13515-2 | RMEF recognizes the need to utilize new tools like ACECs. Some of the proposed designations seem to address very limited landscapes and appear to micro-manage a planning effort that may be better suited for project-level management. Alternatively, similar protections could be addressed in plan components that protect/conserve special status species. | See DEIS Volume I Chapter 2.2.6 Management Actions 7508-7515 for a full range of alternatives analyzed related to the Special Status Plant Species ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |

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| 836 - Special Designations–ACECs (7400-7570) | #13515-4 | As part of a balanced approach to resource conservation and recreational opportunities, we appreciate consideration of seasonal closures to protect crucial habitats and wildlife activities during important life stages (e.g., crucial winter range, parturition, etc.) RMEF recognizes the proposed overall shift in designated acreages from various Recreation Areas to ACECs or other designations. While we understand the ecological need behind some of the proposed shifts, RMEF is sensitive to the perceived loss of recreation. Continued discussion with the recreational community is needed to clarify where, when, and what type of recreational activities are or are not allowed across the planning area. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See Management Actions 6500-6557 for alternatives analyzed related to Recreation, and Management Actions 6600-6620 for alternatives analyzed related to Off Highway Vehicle Use. Route specific designations are outside of the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13515-5 | Instead of independent (large and small) ACEC management direction, RMEF recommends that specific management treatments and decisions be made at the project level where potential impacts can be better assessed. Special Designation Wilderness designation (Wilderness Areas - WA, Lands with Wilderness Characteristics - LWC, and Wilderness Study Areas - WSA) and ACECs often restrict various active land management activities that are needed to ensure healthy, sustainable landscapes. This concept is embedded in several proposed land use designations. RMEF supports active management on our public lands to benefit wildlife habitat and manage fire risk. Given the current conditions of many public forests and rangelands, RMEF supports planning components that limit additional wilderness and other special designations that limit management. | Wilderness Study Area designation process is covered in section 3.22.2, and is outside of the scope of this DEIS. Alternatives for management are analyzed in Chapter 2.2.6, section Special Designations, Wilderness Study Area, management actions 7100-7103. A range of alternatives analyzed regarding Lands with Wilderness Characteristics can be seen in Management Actions 1500-1517. A range of alternatives analyzed regarding ACECs can be seen in Management Actions 7400-7570. |
| 836 - Special Designations–ACECs (7400-7570) | #13549-8 | The last area I would like to address is 7490-7497 page 2-194. This states that the Pine Springs ACEC would be expanded to 6,480 acres. These extra acres would inhibit water development or maintenance because there is no live water in the area and because of this animal dispersement. Wildlife and livestock would be more congregated around other water resources which would impact range health. | See DEIS Volume I Chapter 2.2.6 Management Actions 7490 - 7497 for a full range of alternatives analyzed regarding potential designation / expansion / dismissal of the Pine Springs ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-6 | BLM Must Correct Both Procedural Errors and Its Analysis of Areas Proposed for Designation as Areas of Critical Environmental Concern Sweetwater County and the Coalition of Local Governments ("Coalition") have commented extensively on the BLM's analysis of areas proposed for designation as an Area of Critical Environmental Concerns ("ACECs") over the past 12 years. These comments specifically focused on the BLM's analysis of the relevant and important values identified by the BLM in what is now Appendix C of the DEIS, and the BLM's failure to demonstrate any threat of irreparable damage to the resources to correctly measure the need for ACEC designation. Sweetwater County has attached the Coalition's previously submitted ACEC Table (Attach. 4, ACEC Comment Table (Aug. 2017)) for the BLM's convenience and incorporates that discussion by reference here. In addition, the BLM failed to comply with its own regulations and policies when filing the notice of the proposed ACECs in Preferred Alternative B by not specifying the resource use limitation for each ACEC, not providing a complete list of all areas considered for ACEC designation, failing to explain why a nominated area did not qualify for designation as an ACEC, and failing to provide any monitoring requirements for special designated areas such as ACECs. | ACEC monitoring plans are site specific planning documents and are not within the scope of this DEIS. See DEIS Volume II Appendix C for a complete evaluation report for each ACEC considered for designation within the DEIS. See DEIS Volume II Appendix V for tables of restrictions that would occur in each proposed ACEC under each alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-7 | a. BLM Failed to Specify the Resource Use Limitation for Each ACEC and to Identify Areas Not Proposed for ACEC Designation in the Federal Register Notice Pursuant to 43 C.F.R. § 1610.7-2(b), "[t]he State Director, upon approval of a draft resource management plan, plan revision, or plan amendment involving ACECs, shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitation, if any, which would occur ifit were formally designated." The Federal Register notice for the Rock Springs Proposed RMP and DEIS provided a list of the proposed ACECs under the preferred alternative and included only the ACEC name, acreage, and short list of vague significant values for the areas. 88 Fed. Reg. 56654, 56654-56655 (Aug. 18, 2023). The Federal Register notice failed to specify the resource use limitation(s) that would occur if the areas were formally designated as an ACEC thereby failing to provide notice to anyone affected by the particular limitation(s). | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs, including all possible use limitations. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-8 | In addition, BLM Manual 1613 requires the BLM to provide a list of all areas considered for ACEC designation, including nominated areas that are not proposed for ACEC designations under the Preferred Alternative. See BLM Manual 1613, Section 21.A.2 and Section 32 (Sept. 29, 1988). The County believes that the BLM may have failed to disclose in the Federal Register Notice other areas that were nominated for ACEC designation but dropped from further consideration. See 88 Fed. Reg. at 56654-56655. At the September 25, 2023, City of Rock Springs Workshop, the Rock Springs Field Manager stated, "over the course of scoping, because we scoped in 2011, and again in 2013, we had received over 27 ACEC proposals." Attach. 5, Transcript of Rock Springs Workshop Meeting (Sept. 25, 2023). Neither the Scoping Report for the Rock Springs RMP revision, the current Proposed RMP and DEIS, nor the Federal Register Notice for the release of the DEIS include a list of all 27+ proposed ACECs. Appendix C of the DEIS lists 26 proposed ACECs, but the Field Manager's statement represented that even more were proposed. | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs, including all possible use limitations. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-9 | The BLM has failed to follow its own procedures for notifying the public about nominated and proposed ACEC's and must correct this procedural error. In accordance with the regulations, other BLM Field Offices have provided more detailed descriptions in their Federal Register Notices of the proposed ACECs under Preferred Alternatives for their RMP amendments, in addition to listing those areas that were nominated but are not moving forward for designation as an ACEC. See e.g. Attachs. 6, Federal Register Notices re ACEC Proposals. Providing all | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs, including all possible use limitations. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |

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| | | information in the notice as required by the regulations will properly inform the public of the implications of any ACEC designations and potential restrictions that will be placed on other multiple uses. | |
| 836 - Special Designations–ACECs (7400-7570) | #13585-10 | The BLM must also provide a complete list of nominated and not nominated proposed ACECs to cooperators for review and consideration before re-noticing the proposed ACECs. This would allow for cooperators to review all nominated ACECs and provide meaningful feedback to the BLM. Knowing all areas that the BLM and/or the public have nominated for ACEC designation within the Rock Springs Field Office is also important for consideration and comparison for those areas the BLM is proposing to carry forward for designation under the Preferred Alternative | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-11 | b. BLM Failed to Disclose and Analyze in the DEIS When an Area Does Not }Jeet ACEC Criteria "When an area is found not to meet the relevance and importance criteria, the analysis supporting that conclusion must be incorporated into the plan and associated environmental document." BLM Manual 1613, Section 21.D (Sept. 29, 1988). If more than the identified 26 Proposed ACECs from Appendix C are nominated as discussed above, then the BLM also fails to provide an analysis in the DEIS at Chapter 4.21 explaining why certain nominated areas did not meet the relevance and importance criteria for ACEC designation. See DEIS at 4-229 - 4-231. This similar analysis is lacking in relation to Alternatives C and D, which propose either no ACECs or a reduced amount of ACECs for designation despite the BLM's conclusions in Appendix C that the areas meet the relevance and importance criteria. See DEIS at 4-230 - 4-231; see also BLM Manual 1613, Sections 33.E and 33.F. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-12 | When the BLM had previously identified Alternative D as the Preferred Alternative, the BLM had also failed to explain why certain proposed ACECs were not going to be nominated despite meeting the "relevance" and "importance" criteria. The CLG on behalf of member cooperators had supported exclusion of certain areas from ACEC designation and provided extensive comments on why those areas did not qualify. See Attach. 4, ACEC Comment Table (Aug. 2017). This type of discussion must be included within the DEIS. See BLM Manual 1613, Sections 33.E and 33.F. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-14 | BLM Fails to Adequately Explain the Proposed ACEC's Relevance and Importance The BLM has proposed areas for ACEC designation that were previously rejected under the Green River RMP but has failed to explain why the areas now warrant designation after having previously been found to not meet the relevant and importance criteria. For example, the Pine Mountain Management Area was "not recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus would not need to receive the same management emphasis." DEIS at 2-163 (Mgmt. Action #7312). Under the Green River RMP, Pine Mountain was maintained as a geographic management unit. Id The BLM provides no explanation or analysis indicating what has changed in the area to now warrant an ACEC designation, or that the area should be expanded to include the rest of the Proposed Salt Wells ACEC. See DEIS at Appendix C-13 - C-14. Similarly, Sugarloaf Basin was found to "not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in the area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus does not need to receive the same management emphasis. The watershed, scenic, and wildlife resources are determined to be neither more than locally significant nor fragile, sensitive, or rare, when compared to those values found in Currant, Sage, and Red Creeks." DEIS at 2-168 (Mgmt. Action #7329). Under the Green River RMP, the Sugarloaf Basin was a management area. Id. The BLM provides no explanation or analysis indicating what has changed in the area to now warrant an ACEC designation when it so clearly did not meet the relevant and importance criteria in the past. See DEIS at Appendix C-15 -C-16. The same discussion and failure relates to many of the other "newly" Proposed ACECs, which under the Green River RMP were managed as either Special Recreation Management Areas or Management Areas. One last example is the Monument Valley Management Area that Preferred Alternative B proposes for ACEC designation. Id. at 2-171 - 2-172. The BLM previously concluded that "[a]lthough the Monument Valley area has unique scenic features and has the apparent high potential for significant cultural and paleontological resources, there has been little systematic inventory of these features and resources. This lack of information precludes identification of specific resources that meet the ACEC relevance and importance criteria for designation of ACECs." Id. at 2-171. In Appendix C, the BLM does not describe any new inventory of"significant cultural and paleontological resources" and instead bases the ACEC designation on the qualities associated with the Adobe Town Wilderness Study Area ("WSA"). Id. at Appendix C-26. There is no explanation as to why the Checkerboard lands to the north of the WSA warrant ACEC designation or why the WSA designation is insufficient to protect the resources of concern. In addition, the County opposes any ACEC designations within the Checkerboard that would impact private landowner rights. The other failure of the BLM's ACEC analysis is that it has not been able to show that the relevant resource value to be protected had more than local significant importance or that it was otherwise so rare and irreplaceable that additional protection was necessary. The Coalition, on behalf of its members such as Sweetwater County, commented extensively on these failings over the last decade. See e.g. Attach. 4, ACEC Comment Table (Aug. 2017). One of the main rationales given for the Proposed ACECs is to protect specific wildlife habitat, including raptor nesting areas, big game crucial winter range habitat, migration corridors, and sage-grouse priority habitat management areas. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |

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| | | However, there is no discussion about how the wildlife habitat within the Rock Springs Field Office is any more significant or important than habitat found in the Little Snake, White River, Pinedale, Kemmerer, or Vernal Field Offices, or any habitat found in any other state. Furthermore, the BLM fails to explain how the wildlife habitat is so sensitive, rare, or irreplaceable compared to any other habitat found across BLM's public lands. Wildlife habitat in the Rock Springs Field Office does not have "special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource." BLM Manual 1613, Section l l(B)(l). The only time that the BLM addresses the potential rarity or importance of wildlife habitat is under the Proposed Big Game Migration Corridor ACEC. DEIS at Appendix C-62 - 6-63. The BLM explains that the "migration corridor is the longest known mule deer migration corridor in the U.S. and is traveled by up to 5,000 deer twice each year." Id. at C-63. However, significant migration corridors exist in about every state in the western United States and additional corridors exist in the State of Wyoming. This alone does not warrant ACEC designation. In addition, as discussed more thoroughly in the next section, most important wildlife habitat receives protection through specific management actions that place seasonal restrictions, buffers, density disturbance requirements, etc. | |
| 836 - Special Designations–ACECs (7400-7570) | #13585-15 | ii. BLM Completely Ignores Discussion on Whether Special Management is Required to Protect and Prevent Irreparable Damage to Important Resources Even if a nominated area meets the relevance and importance criteria for the ACEC, the BLM must still consider whether "special management attention is required" "to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish, wildlife, and plant resources, or other natural system or processes." 43 U.S.C. §1702(a); see also BLM Manual 1613, Section 12. The BLM ignores this portion of the ACEC analysis and fails to consider how the relevant resources are already protected under existing statutes, regulations, and/or existing management actions. A significant example of this failure is the BLM's attempt to layer ACEC designations on top of WSA designations throughout the planning area under Preferred Alternative B. If the ACEC designation is proposing the same management and restrictions as a WSA, then there is no reason for an overlapping ACEC designation. By law, WSAs are closed to development. 32 U.S.C. § 1782(c). The BLM provides no explanation as to why the ACEC designation is necessary to protect the underlying resource value when it is already protected by the WSA designation. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. Wilderness Study Areas may be dismissed or designated as Wilderness by congress at any time and changing designations to these areas are outside of the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-16 | In addition, under Preferred Alternative B, the BLM also proposes to continue managing WSAs that Congress chooses not to designate as Wilderness for their "wilderness values." DEIS at 2-152 (Mgmt. Action #7101). The County opposes this management action, but also notes that the BLM provides no rationale for the need for an overlapping ACEC designation. The County objects to any ACEC designations that overlap with existing WSAs, including the Pine Springs ACEC, Oregon Buttes ACEC, Greater Sand Dunes ACEC, and Greater Red Creek ACEC. See DEIS at Maps 2-29, 2-30, 2-32. The County also objects to any ACEC designations that border WSAs to the extent the BLM is using it as substitute for expanding the current WSAs' boundaries. | See DEIS Volume I Chapter 2.2.6 Management Actions 7100-7103 for a full range of alternatives analyzed regarding Wilderness Study Areas and management following potential dismissal by congress. Wilderness Study Areas may be dismissed or designated as Wilderness by congress at any time and changing designations to these areas are outside of the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-17 | The other resource values often cited in the ACEC analysis include areas of cultural significance, such as rock art panels, petroglyphs, and other geological features, as well as historic trails. While Sweetwater County does not object to the relevance and importance of some of these sites, the BLM fails to recognize the statutory protections these sites already receive. The Archaeological Resources Protection Act ("ARPA"), 16 U.S.C. §§ 470aa-470mm, and the National Historic Preservation Act ("NHPA"), 54 U.S.C. §§ 300101-300315; 36 C.F.R. Part 800, already provide longstanding protections to archaeological and cultural resources. The BLM must show additional special management is required to protect these resources or that the current laws are inadequate to protect them. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-18 | Cedar Canyon, La Barge, Sugarloaf, Tolar, and White Mountain are areas that are protected by ARPA and NHPA, and the BLM should not use the rock art and petroglyph sites as a basis for ACEC designation. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-19 | Sweetwater County especially objects to the expansion of existing ACECs, such as Cedar Canyon ACEC and White Mountain Petroglyphs ACEC, when those specific sites are already protected by statute and pursuant to other proposed management actions. Compare DEIS at Map 2-29 with Map 2-30. The BLM proposes to manage rock art sites and their surrounding viewshed "to protect their cultural and historical values" by prohibiting surface occupancy, placing a no surface occupancy for fluid minerals, designating it as a right-of-way exclusion area, etc. DEIS at 2-91 - 2-92 (Mgmt. Action #5100). ACEC designation is not necessary to protect this resource. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-20 | Finally, national historic trails and wagon roads are also protected by the NHPA and do not necessitate a large swath of land to be designated as an ACEC to protect the trails themselves. Pursuant to the National Register Bulletin #15, a trail must also retain its integrity to be considered in the National Register of Historic Places. A trail must still be well-established or still visible, and not obscured by modem use. Many of the historic trails, such as the Cherokee Trail, in Wyoming are no longer visible and have only a few segments that can even be located. For those that are visible, a¼ mile buffer on each side of the trail is only warranted pursuant to the National Trails Act. See e.g. 16 U.S.C. § 1244(a)(3) ("The authority of the Federal Government to acquire fee title under this paragraph shall be limited to an average of not more than ¼ mile on either side of the trail."). The BLM provides no explanation why the National Historic Trails within the Proposed South Pass Historic Landscape ACEC would require an additional 50,000+ acres under the Preferred Alternative B to protect trails that in many places are no | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. See DEIS Volume I Chapter 2.2.6 Management Action 7498-7507 for a full range of alternatives analyzed regarding potential management of South Pass Historic Landscape ACEC. |

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| | | longer visible. See DEIS at 2-195 (Mgmt. Action #7498 - expanding South Pass ACEC from 53,940 acres to 171,300 acres under Preferred Alternative B). | |
| 836 - Special Designations–ACECs (7400-7570) | #13585-21 | The BLM must correct the substantial failure of addressing whether special management prescriptions are necessary to protect the resource values identified within the Proposed ACECs, and address the fact that many of these areas are already protected by existing laws, other designations, and/or proposed management actions. The BLM must allow cooperator participation upon said correction. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-22 | ACECs Are Not a Substitute for Wilderness Study Areas According to BLM's own policies, "[a]n ACEC designation will not be used as a substitute for wilderness suitability recommendations." BLM Manual 1613, Section 06. While ACECs may be designated within WSAs, "[i]f an ACEC is proposed within or adjacent to a [WSA], the RMP or plan amendments shall provide a clear description of the relationship of the ACEC to the recommendations being made for the WSA." Id at Section 33.D. One thing to consider when determining the appropriate management prescriptions for a Proposed ACEC is if the area includes "an area recommended for designation (or already designated)" and if the "management under the other designation afford sufficient protection of potential ACEC values." Id at Section 22.A.6. The BLM has conveyed to cooperators that the ACEC designations on top of WSAs are proposed in case the WSAs are not retained. MA#7101 further admits the BLM's policy of using ACECs as a substitute for WSAs. However, the BLM fails to provide any discussion in the DEIS on the relationship between the proposed ACECs and the overlapping and/or neighboring WSAs. As discussed above, there is no description as to why an ACEC designation is necessary overtop an existing WSA, which is already managed to protect the area's wilderness values. There is also no explanation as to why an ACEC designation is necessary for those areas surrounding the WSA, which under the Preferred Alternative B would be managed as a "VRM Class II within three miles or the visual horizon (whichever is closer) of a WSA boundary." DEIS at 2-152 (Mgmt. Action #7102). For example, for the Monument Valley Management Area that Preferred Alternative B proposes for ACEC designation, the BLM fails to describe any new inventory of "significant cultural and paleontological resources" and instead bases the ACEC designation on the qualities associated with the Adobe Town WSA. DEIS at Appendix C-26. There is no explanation as to why the Checkerboard lands to the north of the WSA warrant ACEC designation or why the WSA designation is insufficient to protect the resources of concern. The County continues to object to the overlapping designations, but the BLM must still provide sufficient explanation within the DEIS as to the relationship between the WSA and ACEC designations to properly inform the public of the management of these areas and to allow for meaningful participation in reviewing these explanations | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. Wilderness Study Areas may be dismissed or designated as Wilderness by congress at any time and changing designations to these areas are outside of the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13585-23 | d Monitoring Requirements for ACECs Pursuant to 43 C.F.R. § 1610.4-9, a "proposed plan shall establish intervals and standards, as appropriate, for monitoring and evaluation of the plan." These should be based on the sensitivity of the resource to the decisions involved and provide for a way to evaluate whether mitigation measures are satisfactory, or a significant change has occurred that warrants a plan amendment. Id. In addition, BLM Manual 1613 requires ACEC monitoring to be part of the monitoring provisions in a RMP. BLM Manual 1613, Section 63. Intervals and standards for monitoring ACECs must be established and "is critical - not only to ensure that protection of the identified resource values occurs, but also to keep the managing official aware of how well the RMP provisions are accomplishing their objectives." Id. The BLM is also required to annually report on the progress of implementing and monitoring ACECs. Id. at Section 65. The DEIS fails to discuss any intervals and standards for monitoring ACECs. The Proposed RMP currently provides a management action to "establish an implementation, monitoring, and evaluation process, including all interdisciplinary monitoring plan, which would evaluate the overall effectiveness of implementing the management decisions for the planning area and would be used as a basis for making management adjustments." DEIS at 2-4 (Mgmt. Action #0008). However, this is insufficient, as a monitoring plan should be included within this currently Proposed RMP and DEIS. The DEIS further fails to discuss any monitoring plan for ACEC management actions. | ACEC monitoring plans are site specific implementation documents and are not within the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13624-31 | Areas of Critical Environmental Concern Page 3-28 of the draft EIS purports to quote the definition of an ACEC from Section 103(a) of FLPMA. The DEQ/AQD notes that the quote is not complete. The DEQ/AQD suggests that BLM remove the quotes or indicate the omitted material by inserting brackets ([ ]). | Updates to language was reviewed for accuracy. |
| 836 - Special Designations–ACECs (7400-7570) | #13651-4 | The present cultural resource sections (3-11 & 4-12) are far too abbreviated and require elaboration. There is no discussion of how much of the RMP Update area has been inventoried or surveyed. How reliable is the existing cultural resources data? What is the average site density? What proportion of sites are eligible to the National Register of Historic Places (NRHP)? Given average densities and proportion of historic properties, how many eligible sites/places might remain undiscovered? The importance and significance of the highlighted cultural resource sites and landscapes needs further development. What is the rationale behind the selection and boundaries of specific Areas of Critical Environmental Concern (ACEC)? Why are certain rock art sites so important? | See DEIS Volume I Chapter 2.2.6 Management Actions 5100-5106 for a full range of alternatives analyzed regarding known rock art sites which may or may not be within the boundaries of proposed ACECs. Language in this section of the DEIS confirms that future discoveries would receive equal protections. Location of cultural sites is often confidential data. |
| 836 - Special Designations– | #13651-42 | 3.22.1 Special Designation-Areas of Critical Environmental Concern and Other Management Areas Areas of Critical Environmental Concern (page 3-23-3.29) The section on ACECs indicates all but one has a cultural component. Please discuss this fact, the nature of the cultural component and what the ACECs do in management | Location of cultural sites is often confidential data. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume I Chapter 2.2.6, section 'Heritage and Visual |

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| ACECs (7400-7570) | | terms for the cultural resources they contain. That discussion also deserves attention in the Cultural Resources affected environment section (3.11). The map section of Volume II of the draft EIS should include additional maps of these Cultural resources ACECs to depict information on a range of factors important to an understanding of the ACECs and the landscape of the ACEC. Another map we recommend would provide an illustration of all special designations including designations for ACECs illustrating for example: transportation networks, oil and gas wells, mine claims and permit areas. | Resources (HR) - Specific Cultural Resources', Management Actions 5100-5127 for a full range of alternatives analyzed regarding potential management decisions on a variety of known and unknown cultural resources. |
| 836 - Special Designations–ACECs (7400-7570) | #13651-55 | A similar concern is the fragmentation of ACECs that arises from tolerance of oil/gas and other development uses in a portion but not the entirety of ACECs. If it qualifies as an ACEC why segment it and allow development in any part? If the BLM plans to do so, your EIS should clearly state the intention to segment ACECs. | See DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13651-61 | 4.21 Special Designations (pages 4-229 to 231) The BLM should detail ACECs to compare the alternatives. These details should specify acreage and stipulations that apply to management in the individual alternatives. The current maps don't speak for themselves. Create a comparison table for ACECs under the Alternatives designed to specify name, acreage and protective stipulations. | See DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. Differing acreage prescriptions can be seen in this section as well. Table 1 in the DEIS Executive Summary shows overarching ACEC acreages by alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-1 | BLM improperly relies on sage-grouse protections for establishing ACECs, despite expressly disclaiming that it will use sage-grouse conservation in its decision making process. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-10 | As illustrated by FLPMA's legislative history,6 ACECs were intended to be narrow designations with management prescriptions tailored to protection of the specific resource requiring the designation. As one Senate Report states, [The ACEC] category is not designed to be a 'no growth' category. Only uncontrolled development is unwanted. The adjective 'incompatible' is present to make certain that development is to be allowed which is compatible with the basic environmental or renewable resources values or safety problems of the land in question. In short, multiple use, when planned, is clearly expected. Secondly, the category has been subdivided into subcategories to pinpoint the basic values of the land involved so as to better provide opportunities for development which can demonstrate its compatibility with such values. S. Rep. 95-734 O, at 128 (1973). This language demonstrates that Congress never intended the designation of ACECs to override multiple-use management. | See DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-11 | BLM merely offers a simple list of "relevant" and "important" resources associated with each ACEC. See, e.g., RMP Draft EIS at C-4 - C-64. The agency cites numerous resources as relevant or important, but not both. See id. Moreover, BLM never explains why the protections available under the Green River RMP are inadequate or why special management attention is required. In other words, BLM has not justified the expanded or newly created ACECs with any reasoned explanation. It has not demonstrated what has changed since it first established existing protections under the Green River RMP such that the relevant and important resources are (a) not adequately protected under the Green River RMP, or (b) in need of special designation now through a new or expanded ACEC. See Manual at § 1613.12. Most troublingly, BLM admits that it failed to provide its rationale for proposing the ACECs and will only provide that reasoning when it is too late for members of the public to comment: "The rational for designating or not designating ACECs will be provided in the Final Environmental Impact Statement (FEIS)." RMP Draft EIS at C-3. That is illegal and alarming. FLPMA's regulations state that BLM "shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitations, if any, which would occur if it were formally designated." 43 C.F.R. § 1610.7-2. More specifically, the ACEC Manual requires that "[t]he public ha[ve] an opportunity to comment on BLM's assessment of relevance and importance criteria[.]" Manual at § 1613.42. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-12 | Second, the proposed ACECs cover far too much land. Their geographic scope is enormous, and disproportionate to their supposed goals. BLM fails to properly define the ACEC borders to fit the "relevant" or "important" resources it attempts to define. BLM is required to geographically limit an ACEC to fit the unique "special management" approach needed to protect the relevant and important resources. Nothing more. See Manual at § 1613.12; see also id. at § 11613.22B.2. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-13 | As discussed above, an area may meet the criteria for a "relevant" "fish or wildlife resource" if it includes "habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity." 43 C.F.R. § 1610.7-2(a); Manual at § 1613.11(A)(2). Mule deer and other large game species (which are identified in the EIS at 3-7-3-8) are not endangered, sensitive, or threatened.9 In fact, BLM's EIS identifies federally listed wildlife in the planning area and "Wyoming BLM Sensitive Wildlife Species" that BLM has determined "require special management consideration to avoid potential future listing under the ESA." See id. at 3-10-3-12. Notably absent from either list are mule deer and other large game species. Nonetheless, BLM contends that it has evaluated the creation of the Big Game Migration Corridor ACEC "based on a citizen propos[al]"10 and that the ACEC meets the criteria for a "relevant" fish-and-wildlife resource simply because the area is a "significant migration corridor for large game species." Id. at C-62.11 That is patently insufficient for ACEC designation: big game are not a special status species and do not require special management consideration. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. Section C.26 covers the Big Game Migration Corridor ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |

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| 836 - Special Designations–ACECs (7400-7570) | #13665-14 | Indeed, BLM fails entirely to explain why new special management for the big-game migration corridor is necessary. See id. at 2-210-2-211; C-62-C-63. BLM does not address why existing seasonal restrictions and surface-occupancy stipulations (in existing leases and following the Wyoming Game and Fish Department's guidance) are insufficient to protect the big-game migration areas. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. Section C.26 covers the Big Game Migration Corridor ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-15 | The recommendation also indicates that fences and other potential impediments should not be constructed. Id. Overall, as this guidance demonstrates, the Wyoming Game and Fish Department recognizes that oil-and gas development can occur within big-game migration corridors with a few limited restrictions. In managing wildlife habitat, the federal government should defer to the state's management prescriptions. As the D.C. Circuit explained, in enacting FLPMA, Congress "carefully and explicitly" "assigned the states the primary responsibility of management of wildlife programs within their boundaries." Defenders of Wildlife v. Andrus, 627 F.2d 1238, 1248 (D.C. Cir. 1980). | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. Section C.26 covers the Big Game Migration Corridor ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-16 | With respect to the Natural Corrals ACEC, under Alternative B, BLM proposes to "retain" the prior 1,110-acre ACEC designation established by the Green River RMP. RMP Draft EIS at 2-191.14 In a change from the prior RMP, however, BLM now proposes to close the Natural Corrals ACEC "to consideration of fluid mineral exploration and development." Id. But BLM's 14 There is a discrepancy in BLM's characterizations of the total acres included within the Natural Corrals ACEC. Compare RMP Draft EIS at 2-191 (listing 1,110 acres) with id. at 3-28 (listing 1,142 acres). explanation for the change is inadequate. It simply does not express why the protections provided in the Green River RMP are now inadequate to protect the values and resources in the ACEC, requiring BLM to suddenly preclude all oil-and-gas development. See id.; see also id. at C-28-C-29. BLM merely offers the following limp justification: Impacts to wildlife and fisheries from the management of the Natural Corrals ACEC (1,110 acres) would be similar to those described under Alternative A [i.e., the Green River RMP]. Some additional protective measures to prevent or reduce surface disturbance could provide greater protection of habitat and reduce disturbance to wildlife from vehicles, machinery, or human presence. Id. at 4-72-4-73. This cursory explanation acknowledges the impacts to "wildlife and fisheries" remain the same and does not even identify the specific species or populations of wildlife that "could" be protected. | See updates to DEIS Chapters 2.2.6 Section Special Designations - ACECs, subsection Natural Corrals ACEC and Chapter 3.22.1 - Special Designations ACECs and Other Management areas for consistent listing of current ACEC acreage. See DEIS Volume II Appendix C.12 for a full report of the Natural Corrals ACEC Evaluation. See DEIS Chapter 2.2.6 Management Actions 7477-7489 for a full range of alternatives analyzed regarding the Natural Corrals ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-19 | The Draft EIS's opening chapter provides that "[a]ll [sage-grouse] management actions … are outside the scope of this planning effort and are not analyzed," and BLM disclaims that any of its management decisions are based on sage-grouse. RMP Draft EIS at 1-3. Nonetheless, in the Draft RMP, BLM cites sage-grouse core areas (designated by the State of Wyoming) as relevant wildlife resources that support its proposed designation of several ACECs. See, e.g., id. at App. C-9-C-11, C-13-C-14, C-17, C-28. For example, in laying out its rationale for one of the proposed ACECs, the Salt Wells ACEC, BLM cites the sage-grouse priority-habitat management area ("PHMA") (a federal designation that is different from-though overlapping with-the 15 There is also a discrepancy in BLM's characterizations of the total acres included within the Cedar Canyon ACEC. Compare id. at 3-28 (listing 2,550 acres) with id. at 4-72 (listing 2,540 acres). state's "core area") as "more than locally significant"; having "qualities or circumstances that make it fragile … endangered, threatened, or vulnerable"; and a "national priority." Id. at C-13- C-14. But BLM cannot have it both ways-either the sage-grouse habitat is relevant to its ACEC decisions, or it is not. | Decisions specific to sage grouse management are outside of the scope of this DEIS, but sage grouse habitat may still be considered as an important factor in determining significance of landscapes. See DEIS Volume II Appendix C for all considered factors in ACEC evaluations. Difference in acreages referenced is due to different alternatives being discusses in the aforementioned sections. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-20 | In any event, although BLM is currently considering amendments to its Wyoming Greater Sage- Grouse RMP that guide the conservation of sage-grouse in several Western states,16 it has not yet released its proposed sage-grouse RMP amendments, so there are no proposed maps, restrictions, or analyses for the public to consider during this comment period. They are not made a part of this Rock Springs proposed RMP in any event. It is therefore impossible for the public to understand, much less accurately comment on, a sage-grouse-based ACEC. And "[a] decision made without adequate notice and comment is arbitrary or an abuse of discretion." NRDC v. EPA, 279 F.3d 1180, 1186 (9th Cir. 2002) (citing 5 U.S.C. § 706(2)(A)). | Decisions specific to sage grouse management are outside of the scope of this DEIS, but sage grouse habitat may still be considered as an important factor in determining significance of landscapes. See DEIS Volume II Appendix C for all considered factors in ACEC evaluations. |
| 836 - Special Designations–ACECs (7400-7570) | #13665-21 | BLM's currently designated PHMAs for sage-grouse, outlined in the Wyoming Greater Sage- Grouse RMP,17 overlap with Wyoming's core sage-grouse area designations. They cover much of Wyoming and the Rock Springs area, and they both implement a multiple-use strategy. The PHMA's "management priority is: to open to oil and gas leasing, but with restrictions; to exclude or avoid disturbance to sage-grouse and their habitat; and to minimize impacts to PHMA where they cannot be avoided." Wyoming Greater Sage-Grouse RMP, at 6 (Mar. 2019). BLM's Draft RMP fails to provide any justification for why management under the current PHMA framework does not sufficiently protect sage-grouse in the areas covered by BLM's newly proposed ACECs, or why the areas must be entirely closed to further oil-and-gas leasing, rights-of-way, or new roads solely to protect sage-grouse. BLM's designation of ACECs based on the presence of sage-grouse is arbitrary and contrary to BLM's assertion that its new RMP decisions are not based on sage-grouse conservation. | Decisions specific to sage grouse management are outside of the scope of this DEIS, but sage grouse habitat may still be considered as an important factor in determining significance of landscapes. See DEIS Volume II Appendix C for all considered factors in ACEC evaluations. |
| 836 - Special Designations–ACECs (7400-7570) | #13668-3 | Management # 7421 Page 2-178 …Prohibit surface disturbing activities, except for activities intended to protect or enhance ACEC values. I would prefer a different alternative than B that will not prohibit surface disturbing activities, such as drilling a well and limiting the kind of fence that one would be allowed to use. Areas of our allotment that would be VRM 2 on the top of Mellor Mtn. and the Sage Creek pasture may, in the future need solar panels or some other means to supply water to a well for not only our livestock, but for all species who currently | See DEIS Volume I Chapter 2.2.6 Management Actions 7418-7433 for a full range of alternatives analyzed for potential management actions in the Greater Red Creek ACEC. See DEIS Glossary definition for 'Visual Resource Management Classes' for idea of what projects could be permitted in each class. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |

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| | | drink, and limiting that due to "visibility" does not seem logical nor humane; to say nothing of achieving and maintaining rangeland health. Wells can address livestock distribution in addition to the distribution of other species. Lastly, if only electric fences are allowed, then what do we do about the sage grouse running into it? A well-thought out alternative that takes into consideration the whole picture and all apparent factors would be a sensible approach. | |
| 836 - Special Designations–ACECs (7400-7570) | #13668-4 | Management # 7433 Page 2-181 Prohibit livestock grazing in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion (Map 2- 30). I would prefer any alternative other than B, because it would maintain the rangeland health. The stream is at PFC and the sheep help suppress the cheatgrass by grazing in the early summer. So why remove the livestock as they are a tool in helping maintain healthy land conditions? | See DEIS Volume I Chapter 2.2.6 Management Action 7433 for a full range of alternatives analyzed regarding livestock grazing in the Mellor Mountain allotment. |
| 836 - Special Designations–ACECs (7400-7570) | #13691-6 | DCFB rejects the potential designations of new "Area of Critical Environmental Concern" (ACEC) 14when the resource value is based entirely on the concept of "Scenic Value." Scenic Value may be used in coordination with another physical, natural, or historical resource to be conserved. Working in coordination with all interested personnel with good standing, in making those decisions is the desired approach of DCFB. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13702-13 | In its consideration of designating new, and expanding existing, ACECs in its preferred alternative, the BLM has failed to account for the management activities that have been in place which have allowed these areas to retain and enhance their unique values. The BLM has failed to prove how additional management prescriptions are needed. During its 12-year review, cooperators and the BLM had seemingly decided that some of the current ACECs were ripe for belt-tightening and that all proposed ACECs did not meet relevance and importance criteria. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13702-14 | Per Appendix V, all ACECs would be closed to oil and natural gas leasing. The BLM fails to explain how oil and natural gas development would impair the values for which the ACEC is proposed. The BLM did not disclose any analysis within any ACEC report noting how current development has impaired those values. | Please note that DEIS Volume II Appendix V contains a full range of alternatives analyzed, with Management Actions for each alternative broken out in DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570. A full ACEC evaluation report for each proposed area can be seen in DEIS Volume II Appendix C. |
| 836 - Special Designations–ACECs (7400-7570) | #13715-9 | Under Alternative B, BLM would expand Areas of Critical Environmental Concern ("ACECs") by some 83%, to over 1.7 million acres. Notably, the Greater Red Creek ACEC, currently traversed by EPP's existing MAPL pipeline, would be more than tripled in size, from 131,600 acres to 468,170 acres. Yet the DEIS failed to analyze how development of these areas has impaired any environmental concerns within the area, how proposed limitations on use would affect existing uses, or why the proposed expansions are necessary to protect identified concerns when lesser restrictions would meet the same goals. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13751-7 | The treatment of existing, expanded and new ACEC's appears to be based on BLM's April 3, 2023 proposed Conservation and Landscape Health rule (88FR19583), even though these rules have yet to be finalized. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13751-8 | The Draft RMP/DEIS document tends to reflect the proposed rules and not the actual rules in place at the time the document was drafted and subsequently released as a Draft. This is particularly true in preferred alternative B. BLM should reevaluate all ACEC designations under the existing rules rather than apply the rules they hope to see in place. If BLM is unwilling to do so, BLM should advise the public and stakeholders of the impact of the final adoption of the "Conservation and Landscape Health" rules will have on the adoption of any of the alternatives listed in the Draft and/or subsequent final alternative to be adopted. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13754-11 | In the Chapter 2 discussion of the alternatives, particularly as it relates to the ACECs on pages 2-174 through 2-211, the acreage detailed is different than in the summary Table 3-5 on page 3-28 through 3-29. The BLM should ensure the information is consistent throughout the DRMP so that the public is fully and accurately informed. We have noted the discrepancies below, with the first number reflecting the value from Table 3-5 and the second number determined from the Chapter 2 details. Current ACECs are as follows: * Cedar Canyon (2,550/2,550 acres) - cultural values, scenic values, and wildlife habitat; * Greater Red Creek (131,890/131,600 acres) - watershed, riparian values, cutthroat trout habitat, fisheries management, wildlife habitat; * Greater Sand Dunes (36,850/39,290 acres) - geologic and biological features, recreation uses; * Natural Corrals (1,142/1,110 acres) - cultural, historical, recreational, wildlife, and geological values; * Oregon Buttes (3,450/3,440 acres) - scenic integrity as an historic landmark, wildlife and geologic values; * Pine Springs (6,030/6,030) - cultural, historic, prehistoric, geologic, and scenic values; * South Pass Historic Landscape (53,940/53,940 acres) - visual and historical integrity of the National Historic Trails, scenic and wildlife values; * Special Status Plant Species (Variable/1,200 acres) - plant communities, habitat, threatened and endangered species; * Steamboat Mountain (43,270/47,280 acres) - water quality, vegetation, soil, wildlife resources, geological and ecological features, diverse habitats, stabilized Sand Dunes, Steamboat elk herd and other big game populations; * White Mountain Petroglyphs (20/20 acres) - cultural resource values, wildlife and scenic values. | See updates to DEIS Volume I Chapters 2.2.6 and 3.22.1 for improved consistency in listing existing ACEC acreage. |
| 836 - Special Designations–ACECs (7400-7570) | #13754-12 | Per Appendix V, all ACECs would be closed to oil and natural gas leasing. The BLM fails to explain how oil and natural gas development would impair the values for which the ACEC is proposed. The BLM did not disclose any analysis within any ACEC report noting how current development has impaired those values. The BLM further failed to analyze current development pervasiveness and techniques which lessen footprint disturbance and | Please note that DEIS Volume II Appendix V contains a full range of alternatives analyzed, with Management Actions for each alternative broken out in DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570. A full ACEC evaluation report for each proposed area can be seen in DEIS Volume II Appendix C. |

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| | | advancements in reclamation. Closing lands to responsible oil and natural gas leasing and development is not supported and is the most restrictive method for preserving other natural resource values. | |
| 836 - Special Designations–ACECs (7400-7570) | #13776-10 | As managers of South Pass City State Historic Site, SPCR recognizes that the expanded South Pass Historic Landscape ACEC is an improvement for cultural resource and scenic viewshed protection. Matching the boundaries of the ACEC to those in the Lander Field Office is useful for ensuring the National Historic Trail corridor and landscape are preserved. | See DEIS Volume I Chapter 2.2.6 Management Actions 7498-7507 for a full range of alternatives analyzed regarding the potential South Pass Historic Landscape ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13779-6 | Under the proposed alternative, the wisdom and utility of the mitigation hierarchy is arbitrarily rejected; the proposed restrictive wildlife management actions preclude the practice of avoiding, minimizing, and mitigating impacts through the permitting process. In contrast, under current management practices, and under proposed Alternative D (a ready example of BLM's ability to continue such management practices), most activities can proceed as long as impacts are avoided, minimized, or mitigated.13 The existence of these practices clearly establishes that BLM has the necessary tools to ensure responsible development can occur while at the same time meeting wildlife and habitat conservation goals. | See DEIS Volume I Chapter 2.2.6 Management Actions 4400-4436 for a full range of alternatives analyzed for management actions related to Fish and Wildlife. |
| 836 - Special Designations–ACECs (7400-7570) | #13783-7 | ACECs proposed in Alternative B of Rock Springs RMP suffer from systemic inadequacy. First, BLM abandons its statutory obligation to explain why the proposed ACECs requires special management attention beyond those protections already afforded. Second, BLM fails to explain why various resources as both relevant and important. Third, BLM draws expansive, undisciplined ACEC borders instead of properly drawing the borders to the extent of the relevant and important resources. Lastly, BLM neglects to incorporate its multiple-use mandate into the ACECs, instead proposing blanket restrictions like the disallowance of oil and gas leasing altogether. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13783-8 | BLM fails to explain the need for new ACECs and why special management is required as FLPMA demands. BLM merely offers a simple list of "relevant" and "important" resources associated with each ACEC. See, e.g., Draft EIS, Appx. C at C-4 - C-64. But BLM never says what has changed since the implementation of the Green River RMP that now necessitates such restrictive special management. BLM even admits that it is omitting the analysis until it is too late to comment: "The rational for designating or not designating ACECs will be provided in the Final Environmental Impact Statement (FEIS)." Draft EIS, Appx. C at C-3. FLPMA's regulations state that BLM "shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitations, if any, which would occur if it were formally designated." 43 C.F.R. § 1610.7-2(b). More specifically, "[t]he public has an opportunity to comment on BLM's assessment of relevance and importance criteria[.]" BLM ACEC Manual 1613.42 (emphasis added); see also Id. at 1613.12 ("Management prescriptions providing special management attention should include more detail than prescriptions for other areas"). Without the assessment, the only comment the public can offer is really a two-word question: "What changed?" And that question only highlights the notice's inadequacy under the APA and its noncompliance with FLPMA's regulations and ACEC manual. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13783-9 | BLM also neglects the basic tenants of ACEC designation. Several named resources that are the apparent bases for ACEC designation are not deemed either relevant or import, including, but certainly not limited to, a big game range (Cedar Canyon), outlaw Bill Pidgeon's gravesite (Red Creek), and a juniper community (Salt Wells). Draft EIS, Appx. C at C-4, C-7, C-8, C13, C-14. BLM also paints ACECs with broad, untethered strokes. BLM must geographically limit the ACEC to fit the special management attention (unique prescription) needed to protect the relevant and important resource and nothing more. BLM ACEC Manual 1613.12. Not only should ACECs be sized correctly, the "necessary" prescription should be tailored to protect that resource while also permitting other uses. Id. Under the current RMP, BLM and Wyoming do just that. They permit oil and gas leasing on lands also home to big game and sage grouse with some seasonal and spacing restrictions. But now and in contravention of FLPMA, BLM proposes to ban oil and gas leasing on these ACECs. Draft EIS at 2-69. Congress never expected a multiple-use exemption for ACECs. See S. Rep. No. 94-583, at 43; S. Rep. 95-734 O, at 128. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13783-10 | These failures to properly support and define ACECs are typical across the Rock Springs planning area. BLM intentionally withholds its rationale for ACEC designation. It cites numerous resources for relevance or importance but not both. It expands the geographic scope of ACECs well beyond what is necessary to protect the relevant and important resource. And it proposes prescriptions without justifying why they are necessary to protect the resource. These failures are systemic and render each ACEC designation incompatible with FLPMA's ACEC mandates. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13783-25 | BLM goes much further still and requires almost the entirety of all ACECs to follow VRM Class II objectives "to provide greater protections against surface disturbance." Draft EIS 4-147. Surface disturbance matters in the visual resource context only to the extent that it could cause damage to the visual resource or its viewshed. And it cannot possibly be true that every inch of every ACEC is a sensitive visual resource or within its viewshed. True, ACECs do provide BLM discretion to depart from VRI findings (which, again, BLM has not disclosed), but FLPMA still requires BLM to properly scope each ACEC in both size and prescription types. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |
| 836 - Special Designations–ACECs (7400-7570) | #13783-26 | Manual H-8410-1 V.A.2; BLM ACEC Manual 1613.12. Recall, resources considered under FLPMA have "been subdivided into subcategories to pinpoint the basic values of the land involved so as to better provide opportunities for development which can demonstrate its compatibility with such values." S. Rep. 95-734 O, at 128 (1973). So only ACECs designated specifically to protect visual resources can command visual restrictions. And if ACECs or | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. See DEIS Volume I Maps 2-17 through 2-20 for a range of alternatives analyzed regarding Visual Resource Management Classes throughout the field office. |

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| | | portions of ACECs are not based on the existence or protection of visual resources, BLM cannot implement visual restrictions for those ACECs or portions thereof. But once again, BLM runs afoul of FLPMA by doing so anyway. | |
| 836 - Special Designations–ACECs (7400-7570) | #13784-39 | MA#7414, Alt B: "Consider livestock water developments only if wildlife habitat and resource conditions would be improved or maintained." Comment: Narrowing all range improvement projects to only focus on wildlife habitat does not meet the intent of numerous other reasons for the projects. For example, if the concern is to address a stream segment in Functioning At Risk category under PFC, Alternative B will prohibit the water development and directly conflict with MA#4300. | See DEIS Chapter 2.2.6 Management Action 7414 for a full range of alternatives analyzed regarding livestock water development within the existing Cedar Canyon ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13784-67 | "The acres designated as ACECs would be decreased...Management within a portion of the Little Mountain ACEC would require a grazing plan prior to approval of an annual grazing authorization. This management could lead to a delay when livestock use could occur once an operator identifies a desire to graze within area (Previously known as the Red Creek Portion of the Greater Red Creek ACE, 55,880 acres)." (p. 4-181) Comment: This is the first time the BLM is requiring a grazing management plan. The BLM must explain why this is necessary for not only this area, but also at the RMP level. WDA does not support restricting grazing and putting the ownness to develop a grazing plan on the livestock grazing permittees/operator. If the BLM is requiring the plan, BLM must cooperatively complete the plan in a timely manner with the livestock grazing permittees and ensure grazing is not delayed. | See DEIS Volume I Chapter 4.16 for a breakdown of potential impacts to Livestock Grazing Management across all analyzed alternatives. |
| 836 - Special Designations–ACECs (7400-7570) | #13784-72 | "ACEC habitat prescriptions to manage land development, occupancy, and view sheds would limit renewable energy developments. The placement of renewable energy facilities, structures, and transmission/pipe lines; allowance of surface disturbing activities associated with construction, and vehicle access to development sites would be impacted adversely by those restrictions." (p. 4-221) Comment: Again, the BLM has selected Alternative B as the Preferred Alternative, yet directly conflicts with the statement mentioned above. Alternative B increases ACEC, and prohibits surface disturbing activities throughout the Plan Revision. | See DEIS Volume I Chapter 4.20 for a breakdown of potential impacts to Renewable Energy across all analyzed alternatives. |
| 836 - Special Designations–ACECs (7400-7570) | #13787-93 | MA #7490 SD-29 The 6,030 acres of BLM- administered public lands in the Pine Springs area are designated the Pine Springs ACEC (Table 2- 12, Appendix V and Map 2-29). Industry Position: Not aceptable Reason: Follows the existing RMP, however the ACEC conflicts with the KSLA which is a higher value resource than the ACEC. Recommend do not retain the ACEC but revert to the original 90 ac ACEC. The ACEC designation would be retained (Table 2-12, Appendix V and Map 2-30). Industry Position: Not acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained. The ACEC would not be retained. Industry Position: Acceptable Reason: The ACEC conflicts with the KSLA and should be reduced to the original 90 acres. Same as Alternative B Retain the Pine Springs Expanded ACEC and rename to the Pine Springs ACEC. Industry Position: Not acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained. Alternative C is acceptable. | See DEIS Volume I Chapter 2.2.6 Management Action 7490-7497 for a full range of alternatives analyzed regarding management actions for the potential Pine Springs ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13787-95 | MA #7508 SD-34, BR-27, BR-32 The 1,200 acres of BLM- administered public lands in Special Status Plant Species areas are designated an ACEC (Table 2-12, Appendix V and Map 2-29). Industry Position: Not acceptable Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon that will be misunderstood. Retain the Special Status Plant Species ACEC (Table 2-12, Appendix V and Map 2- 30). Industry Position: Not acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon. The ACEC would not be retained. Industry Position: Acceptable Reasons, See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species- specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. Same as Alternative B Industry Position: Not acceptable Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon. Alternative C is acceptable. See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed | See DEIS Volume I Chapter 2.2.6 Management Actions 7508-7515 for a full range of alternatives analyzed related to the Special Status Plant Species ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for nominated ACECs. |

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| | | or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. | |
| 836 - Special Designations–ACECs (7400-7570) | #13787-96 | MA #7509 SD-34, BR-27, BR-32 The BLM-administered public land areas occupied by four Special Status (candidate) plant species are included in the ACEC designation (making up about 66 sites involving about 1,200 acres of BLM- administered public lands). Additional acres may be added to the ACEC, if more of these Special Status (candidate) plant species or their essential habitat areas are found on BLM-administered public lands. Management and protection to actual plant locations is provided for Arabis pusilla, Astragalus proimanthus, Descurainia torulosa, and Thelesperma pubescens (Map 2- 29). Industry Position: Not acceptable Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon that will be misunderstood. Expand the ACEC to include all BLM Special Status plant species on BLM-administered public land areas occupied by those species. Additional areas could be added to the ACEC, if more populations of these Special Status plant species are found on BLM-administered public lands (3,610 acres, Table 2-12, Appendix V, and Map 2- 30). Industry Position: Not acceptable Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon. No similar action, the ACEC would not be retained. Industry Position: Acceptable Reasons, See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species- specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. Modify the ACEC to include the Cedar Mountain Easter daisy (Townsendia microcephala) and Green River greenthread (Thelesperma caespitosa) plant species on BLM-administered public land areas occupied by those species (1,120 acres, Table 2-12, Appendix V, and Map 2-32). Industry Position: Not acceptable Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon. Alternative C is acceptable. See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. | See DEIS Volume I Chapter 2.2.6 Management Actions 7508-7515 for a full range of alternatives analyzed related to the Special Status Plant Species ACEC. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for nominated ACECs. |
| 836 - Special Designations–ACECs (7400-7570) | #13787-97 | MA #7555 SD-40, SD-41, SR-01 No similar action Industry Position: Not applicable Designate the Big Game Migration Corridors as an ACEC (226,335 acres, Table 2-12, Appendix V, and Map 2-30). Industry Position: Not acceptable Reason: Big game winter range and similar area have been appropriately managed according to season restrictions. Big game migration corridors should be managed in the same fashion without new ACEC designations. The science and corridors are only now being evaluated by WY G&F; premature action by BLM is not warranted at this time. Recommend BLM refer the WY Governor's Executive Order for actions. No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable Same as Alternative C Industry Position: Acceptable Alternatives A, C or D are acceptable. | See DEIS Chapter 2.2.6 Management Actions 7555-7562 for a range of alternatives analyzed regarding the Big Game Migration Corridor ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13791-1 | Alternative C, which does not designate any ACECs, and Alternative D which arbitrarily reduces the acres designated as ACECs from existing management, are not based on any legitimate management considerations. The analysis does not convincingly explain why areas designated as ACECs decades ago (existing management) no longer meet the ACEC criteria. BLM planning guidance makes clear that where the relevant and important | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |

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| | | criteria have been established, as is the case in Alternative B, alternatives which do not designate those areas as ACECs must explain how the criteria will be protected through alternative means. Both alternatives C and D utterly fail in this regard. | |
| 836 - Special Designations–ACECs (7400-7570) | #13806-3 | As such, I recommend the BLM maintain ACEC boundaries as proposed in the preferred alternative to include overlapping protections for other special designations such as WSAs and LWCs. (In reference to management actions 7200-7570). | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13826-1 | The draft RMP Alternative B, designates 1.9 million acres of that as 'Areas of Critical Environmental Concern'. Referred to as (ACES) as a result of this increase, designated management areas would decrease to 183,938 acres because the existing 'Managed Areas' would be designated as 'ACECs' under this alternative. 1) My concerns is this increasing ACECs by 460% 2) The legislative committees submitted in their comments that there is no evidence to support a 460% increase in ACEC in the Draft Rock Springs RPM and they felt that Alternative B is simply increasing areas to protect important historic, cultural, wildlife and scenic values. 3) These committees felt that doing this would negatively impact Multiple Use of these lands. and they recommend that the ACECs either remain at the current acreage amount or decrease. I agree with these committees concerns and recommendations. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13826-2 | I am concerned that Alternative B will increase the ACEC by 460%. I have read in legislative comments that the draft Rock Springs RMP does not present evidence to support this large increase. See the information above. Their comment states it is doing so to "Protect important historic, cultural, wildlife and scenic values. I agree with the committee's recommendation that the ACECs either remains as they are currently designated or even decrease these ACECs. My concern is that this designation not only decreases acres available for public use but I feel that these are some of the most important areas for the public to experience and view. These areas are special areas to local culture not just for Native People but also for local families that have lived in these areas for decades. Some have connections that go back over a hundred years | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13826-14 | Making them a part of planning the management of these areas would be a beginning. The BLM Alternative B plan doesn't support this stewardship with the public if these important cultural, historical and landscapes are placed within ACECs where the general public will not be able to access or view them. My recommendation is that these sites are not placed in ACECs and that BLM reject the Alternative B plan and go back to Alternative A and at that point work with state and local officials to submit a more reasonable and workable plan. | See DEIS Volume I Management Actions 7400-7570 for a full range of alternatives analyzed for each considered ACEC. These include allowable uses under each alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #13827-13 | two ACEC nominations for the Rock Springs Field Office - one for the Boar's Tusk (included in the Greater Sand Dunes ACEC) and another for Indian Gap Trail (incorporated into the Steamboat Mountain ACEC) - were proposed by Tribal Members and deserve extra attention when determining if and how these are to be carried forward into the final resource management plan. | MA#5200-5202 and H.R.#3, 4, & 14-16 address consultation and relationship with Native American tribes. MA#7400-7570 (Special Designations - ACECs) discuss the full range of alternatives considered in the EIS. Consultation with Native American Tribes is described in Section 5.1.3. |
| 836 - Special Designations–ACECs (7400-7570) | #13839-1 | The BLM national office has no accurate database of ACECs. There is no standard format for reporting information about ACECs within the agency or to the public. The BLM in recent years has used ACECs to restrict recreational demands, obliterate grazing rights, and hinder economic development in lower-income communities. The absence of a standardized format of ACEC data, while the BLM pushes for more land to be designated as ACECs, is already leading to a growing delta of distrust of what this draft RMP could mean for future BLM land decisions. | National data collecting and monitoring standards are outside of the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13839-2 | while it may be the intention (however unlikely) that implementation of Alternative B will not limit recreational opportunities at this time, nobody, including BLM officials, can know what the designation of an area as an ACEC will mean in the coming years given that BLM plans to "…provide additional guidance for how to incorporate ACECs into resource management decisions in a way that considers trade-offs..." We know that BLM intends to rework which lands can be designated as ACEC and how those lands will be managed. What we don't know is what the outcomes will mean for recreation, or other multiple uses, as the proposed Conservation and Landscape Health Rule has received heavy pushback from the public and has yet to be finalized. We believe it would be an error to designate more than 1.5 million acres in the FO as ACEC when it is unknown what that designation will entail. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. |
| 836 - Special Designations–ACECs (7400-7570) | #13845-7 | During the last two years, several externally proposed ACEC nominations were submitted to BLM, including the Red Desert and Little Sandy ACEC nominations submitted by Wyoming Wilderness Association (WWA) and Pew, and two Indigenous-led nominations, the Boar's Tusk and the Indian Gap Trail, submitted by the Indigenous Land Alliance of Wyoming (ILAW) et al. Pew strongly supports these four ACEC nominations. We appreciate that the BLM recognized the high cultural significance of the Boar's Tusk in its analysis, including analyzing Boar's Tusk as a stand-alone ACEC within the Greater Sand Dunes ACEC. While the other three ACEC nominations overlap those evaluated in Appendix C, it is unclear if BLM fully analyzed the Red Desert, Little Sandy, or Indian Gap Trail within its evaluation. | Red Desert is evaluated within the Western Portion of the Red Desert Watershed, Appendix C.16. Little Sandy is evaluated within the Wind River Front West Portion of the South Wind River, Appendix C.18 and the Sandy Rivers Portion of the South Wind River, Appendix C.19. Indian Gap Trail is evaluated within the Steamboat, Appendix C.23. See Appendix C for the ACEC nomination process and which nominations were evaluated. Some ACEC nominations may have been submitted after alternatives had been developed and analysis initiated and, therefore, were not included in this EIS. |
| 836 - Special Designations– | #13845-8 | The Red Desert ACEC nomination contains high ecological intactness, which fulfils the relevance criteria of fish and wildlife habitat and the importance criteria of mitigating potential threats and vulnerabilities to adverse change. From the CSP report:We observed high ecological intactness within the proposed Red Desert ACEC, with a score | See DEIS Volume II Appendix C for a full evaluation report of each ACEC considered for designation within the EIS. Specifically, see section C.16, Western Portion of the Red Desert Watershed ACEC. Many considered ACECs overlap significant portions of the Red Desert's geography. |

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| ACECs (7400-7570) | | in the 81st, 63rd, 81st, and 89th percentile compared to other equivalently-sized lands across the West, BLM lands within the West, Wyoming, and BLM lands within Wyoming, respectively... We therefore expect the proposed Red Desert ACEC to maintain the integrity of ecological processes within the region and to be especially critical for supporting the area's imperiled species that rely on intact, high-quality habitat, especially sagebrush obligates like the greater sage-grouse and pygmy rabbit. | |
| 836 - Special Designations–ACECs (7400-7570) | #13845-9 | the Little Sandy ACEC nomination meets the relevance criteria related to natural processes, including high climate accessibility, which means species can track suitable climatic conditions. CSP also found Little Sandy meets the importance criteria by containing exemplary conditions essential for maintaining species diversity under climate change. These values contribute to climate resilience, which BLM is directed to evaluate under IM 2023-13. If protected, this area could serve as a biodiversity stronghold. From CSP's report:The [Little Sandy] proposed area is exemplary in climatic accessibility, scoring within the 89th, 93rd, 98th, and 100th percentiles relative to other equivalently-sized areas in the West, western BLM lands, Wyoming, and Wyoming BLM lands, respectively…These above-average values suggest that this area, if left intact, may function as an important stronghold of species diversity under changing climatic conditions (McClure et al. 20175). | See DEIS Volume II Appendix C for a full evaluation report of each ACEC considered for designation within the EIS. The Little Sandy area is included within section C.18 of the Wind River Front West Portion of the South Wind River ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13845-10 | ew recommends that the BLM consider the following types of management for each ACEC, which will ensure the resources and values are safeguarded: * Withdrawal from mineral entry; * Closed to leasing or allow leasing only with NSO with no exceptions, waivers, or modifications; * Designation as ROW exclusion areas; * Closed to construction of new roads; * Closed to motor vehicle use, as limited to motor vehicle use on designated routes, or as limited to mechanized use on designated routes; * Closed to mineral material sales; * Designation as Visual Resource Management (VRM) Class I or II; * Restriction of construction of new structures and facilities unrelated to the preservation or enhancement of wilderness characteristics or necessary for the management of uses allowed under the land use plan; and/or retain public lands in federal ownership. | See DEIS Volume I Chapter 2.2.6 Section 'Special Designations - ACECs' Management Actions 7400-7570 for a full range of alternatives regarding potential management actions in considered ACECs. See DEIS Volume II Appendix V for acreage tables of different withdrawals proposed under each alternative in all considered ACECs. |
| 836 - Special Designations–ACECs (7400-7570) | #13845-11 | Finally, underlying designations do not preclude the BLM from designating ACECs. The BLM can consider areas that meet the relevance and importance criteria regardless of underlying designations (Manual 1613) such as Wilderness, WSAs, Back Country Areas (BCAs), or other conservation designations. While wilderness and other designations can provide protection, ACECs can be overlaid to provide management prescriptions specific to the values for which an ACEC is designated. In this way, the BLM can fulfill its responsibilities outlined in FLPMA to prioritize the designation of ACECs. | See Maps 2-29, 2-30, 2-31, 2-32, for a visual representation of Special Designation Areas proposed under each alternative. |
| 836 - Special Designations–ACECs (7400-7570) | #13865-27 | L. MA #4609 Alternatives A, B, and D of MA #4609 fail to follow NEPA as they would allow BLM to designate new ACECs without public input. The protections of rare plants are already addressed in MA #4602. For these reasons, PacifiCorp recommends that the BLM adopt Alternative C of MA #4609. | Any additional areas considered for ACEC designation under DEIS Volume I Chapter 2.2.6 Management Action 4609 would follow proper process for designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for ACECs. |
| 836 - Special Designations–ACECs (7400-7570) | #13865-38 | 12. Special Designations The expansion of the special designations associated with Alternative B will significantly impair transmission and distribution operations. Alternative B will increase ACEC size by and the amount of ROW exclusion areas in the project area. In Alternative A, currently 426,709 acres are categorized as ROW exclusion. Under Alternative B, this increases to 2,480,876 acres, making the siting of transmission projects difficult across the entire project area. Alternative A is preferred to enable transmission projects to be sited with reduced impacts to resources by shorter routes. | Please note that DEIS Volume I Chapter 2.2.6 Management Actions 7400-7570 contains a range of analyzed alternatives for potential designation of each considered ACEC. See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. |
| 836 - Special Designations–ACECs (7400-7570) | #13865-40 | A. MA #7418 and #7421 Alternative B of MA #7418 will expand the Greater Red Creek ACEC to include the Sugarloaf and Salt Wells Management area. Paired with Alternative B of MA #7421 to make the Greater Red Creek ACEC a ROW Exclusion Area, these Special designations greatly reduce and/or prohibit the potential development of new electricity transmission lines on the East side of Flaming Gorge, increasing cost of potential consumption of renewable hydro-generation power in south-central Wyoming. Alternative A of MA #7418 will maintain the Greater Red Creek ACEC at 131,600 acres by not adopting the Sugarloaf and Salt Wells Management Areas. Alternative A is preferred to maintain corridors for future development. | Please note that DEIS Volume I Chapter 2.2.6 section 'Special Designations- ACECs' subsections 'Greater Red Creek ACEC' contains a range of analyzed alternatives regarding Right of Ways. |
| 836 - Special Designations–ACECs (7400-7570) | #13865-41 | B. MA #7456 Alternative B of MA #7456 will designate the Boars Tusk ACEC as an exclusion area for ROWs. This increase of exclusion area associated with the Boars Tusk ACEC reduces the ability to transmit energy to previously identified customers, thereby increasing future costs of energy grid delivery and reliability. Alternative A of MA # 7456 is preferred because it maintains the approved activities within this ACEC. | Please note that DEIS Volume I Chapter 2.2.6 Management Action 7456 contains a full range of analyzed alternatives. |
| 836 - Special Designations–ACECs (7400-7570) | #13865-42 | C. MA #7498 and #7502 Alternative B of MA # 7498 will expand the South Pass Historic Landscape ACEC to 171,300 acres (from 53,940 acres). This, paired with Alternative B of MA # 7502 making the South Pass Historic Landscape ACEC a ROW Exclusion Area, greatly reduces and/or prohibits the potential development of new electric transmission lines across South Pass to deliver cost-efficient energy. Alternative B would negatively impact the West-Wide Energy Corridor (WWEC) by reducing the area available to develop new ROWs. Specifically, Pg. 2-116 or the EIS states"[E]liminate the existing corridor identified in the WWEC ARMPA/ROD (2009) east of Flaming Gorge in the planning area (126-218). Corridor widths would be 3,500 feet wide. Designate no new corridors." The ability to site new transmission in this energy corridor is critical to renewable energy development in the west and reducing widespread impacts by line siting around areas considered exclusion zones in Alternative B. Alternative A | See DEIS Volume I Chapter 2.2.6 Management Actions 6100-6108 for a full range of alternatives analyzed regarding Renewable Energy. See Management Actions 7400-7570 for a full range of alternatives analyzed regarding potential ACEC management. |

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| | | of MA # 7498 is preferred in order to maintain the existing size of the South Pass Historic Landscape ACEC that will allow for the communities separated by the pass to grow and be delivered power reliably and cost effectively. | |
| 836 - Special Designations–ACECs (7400-7570) | #13878-8 | The BLM has set off a firestorm of public concern around the use of ACECs in the draft RMP. I believe there are places the agency could limit the overlap and duplication of ACECs with other protective measures, and still achieve its Alt B conservation objectives. Below is a GIS map I created showing the overlap among ACECs with other ACECS and WSAs in Alternative B, just in the northern portion of the RMP area. While I understand there might be management objectives written on paper regarding some ACECs that overlap with WSAs, that provide MORE management guidance than what's in WSA management directives, in real life, I don't see that the BLM is managing much at all in those remote areas. For example, I believe you could make do without the ACECs covering the East Sand and Red Lake WSAs. Maybe the only difference there is attention to elk herd management, that a new ACEC could provide. I suggest just writing that into the focus for the area and not creating a whole new ACEC. I suggest eliminating other areas of unnecessary overlap between ACECs and WSAs. | See DEIS Volume II Appendix C 'ACEC Report' for full information on each proposed designation. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for Areas of Critical Environmental Concern. Please note that each referenced Management Action has a full range of potential alternatives analyzed in DEIS Volume I Chapter 2.2.6. Wilderness Study Areas may be dismissed or designated as Wilderness by congress at any time and changing designations to these areas are outside of the scope of this DEIS. |
| 836 - Special Designations–ACECs (7400-7570) | #13878-9 | Northern Red Desert Landscape I struggle with the broken up and overlapping ACEC designations within the former Jack Morrow Hills area (dotted black line in map above) and South Pass area north of it. This is an area that is a wholistic landscape with many shared values relating to cultural and historic resources (Indigenous, emigrant and frontier, etc.), the highest concentration of BLM WSAs in Wyoming, vital wildlife habitat, scenic beauty, expansive vistas and rugged landscape with few signs of human development. I suggest you combine the Steamboat, Sand Dunes, and South Pass Historic Landscape ACECs into just one area and call it something like the Red Desert Western Heritage Landscape. Within this larger area, there is no need for the smaller ACECs of Oregon Buttes and Pinnacles…since they are on top of the larger area. I suggest you just write in the special management prescriptions for different parts of this area, as it done now anyway for your ACECs and other land management. (For example, under the current RMP the Pinnacles have special management prescriptions without calling it another ACEC. Even in your Alt. B ACECs, you divide up special parts for different management, such as for Boar's Tusk or Indian Gap.) I personally don't see a need for the ACEC label if you're covering the on-the-ground management prescriptions in your document. | See DEIS Volume I Chapter 2.2.6 section 'Special Designations - ACECs' for a full range of alternatives analyzed regarding potential management actions for ACECs considered within the Red Desert landscape. |
| 836 - Special Designations–ACECs (7400-7570) | #13878-10 | I do support limiting future oil and gas development in the combined area mentioned above (your Steamboat, South Pass and Sand Dunes ACECs combined from Alt B) to only current existing leases and rights, as is outlined in Alt. B. The majority of this landscape anyway, has been o?-limits to new O&G leasing for 20+ years and also contains significant NSO areas. I've monitored the O&G development in this area for decades, and it's on a steady decline. There hasn't been a new field in 30+ years. Last I looked in detail (2019) within the JMH area there were only 6 producing wells, although maybe with some change in gas prices, some shuttered wells have been restarted. When I examined this all in detail in 2019, my economic contribution figures showed that those 6 wells produced in total approximately $300,000 in natural gas sales in 2019 compared to $2-3 million in big game hunting revenues in economic activity. Even by economic contribution figures, this area's value is for its natural resources such as wildlife, recreation and conservation values. An examination of the state parcels in this area during the state's oil and gas lease sales also shows the same pattern: few parcels are bid on, and the few that are, are returned to the state and not developed. The BLM could do more to clean up old O&G sites that appear abandoned. The photo here is of one site along a county road that could present a public hazard. | See DEIS Volume I Chapter 2.2.6 section 'Special Designations - ACECs' for a full range of alternatives analyzed regarding potential management actions for the Steamboat Mountain ACEC, South Pass Historic Landscape ACEC, and Greater Sand Dunes ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13880-3 | One of the many features that make federal land management in Wyoming unique is the presence of the "checkerboard" and the requirement for heightened consistency, trust, and cooperation between federal, state, and private land managers. The previously mentioned task force on the Rock Springs RMP recognizes this importance and voted for complete consensus on the following statement: "The task force does not support any special management area designations within the checkerboard except for existing Cedar Canyon and Natural Corrals, and Special Status Plant Species ACEC. The task force does recognize the importance of wildlife migration and winter range within the checkerboard." Beyond special designations, rights of way (ROW) stipulations have an oversized impact on the ability for the state and private citizens to access and utilize property within the checkerboard. From an energy perspective, the federal land in the checkerboard area that would be designated as ROW exclusion areas under the preferred alternative, and will have a significant impact on the placement of transmission lines, access roads, and pipelines by limiting access to oil, gas, and renewable sites, and restricting placement of facilities, pipelines, transmissions lines, communication facilities and roads. ROW exclusion areas in the checkerboard would preclude any type of development on adjacent private and state parcels because it will severely limit access to the sites and options for accessing the land or getting the product out. In order to comply with the mandate that a land use plan must "use and observe the principles of multiple use and sustained yield," the entire planning area should be open to consideration of granting ROWs as set forth in alternative D. This applies to management actions: 6201, 6202, 6207, and 6209.7 | See DEIS Volume I Chapter 2.2.6 Management Actions 6201, 6202, 6207, and 6209 for a full range of alternatives analyzed regarding Rights of Ways and Corridors. |
| 836 - Special Designations– | #13880-22 | The task force spent considerable time discussing the designations of various ACECs proposed in Alternative B. Much of the BLM's restrictions are too overly-broad and their justifications and analyses are undercooked. ACECs are supposed to be used sparingly, surgically, and to protect a specific value. The ACECs in Alternative Bare none | See DEIS Chapter 2.2.6 Management Actions 7400-7570 for a full range of alternatives analyzed related to ACECs. See DEIS Volume II Appendix C, introduction section for an explanation of the designation process for |

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| ACECs (7400-7570) | | of these. It is evident that many proposed designations are being put forward to see what may stick. Huge tracts of land are simply closed off from multiple use without the prescribed flexibility that the BLM claims they are able to use. I do not support the designation of any ACECs except for those specifically agreed to by the task force. ACECs are not new to Wyoming or to this RSFO and the task force supported multiple designations, both old and new. These stemmed from having precise and thoughtful approaches, specific to the values in which they were created to protect, and not blanket restrictions, which take entire landscapes out of productive use. | Areas of Critical Environmental Concern. See the rest of Appendix C for a full evaluation report on each proposed area. |
| 836 - Special Designations–ACECs (7400-7570) | #13892-20 | Pages 2-209 South Wind River ACEC, 2-210 East Sand Dunes ACEC, p 2-211 Big Game Migration Corridor, all mention "Manage a separate offsite mitigation area for biological impacts from energy development." Yet the Preferred Alternative will make these areas unavailable for leasing or energy development. Explain. Where will this offsite mitigation area be located? | See DEIS Volume I Chapter 2.2.6 updates to section 'Special Designations ACECs', sub designations 'East Sand Dunes -Red Lake ACEC' 'Big Game Migration Corridor ACEC' and ' South Wind River ACEC' for clarification of language used describing mitigation efforts. |
| 836 - Special Designations–ACECs (7400-7570) | #13892-21 | referring to the South Wind River ACES on p4-103 through p4-104 states "Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation." These are different species than identified in the earlier pages. Why the inconsistency, and what is the specific plan for offsite mitigation? The claim that this off-site mitigation could result in benefits to swift fox is a bit concerning, since the swift fox is a species not known to occur in the RSFO. Please explain how offsite mitigation will work, and why this provision is specifically added to these three ACECs. | The swift fox has been known to historically occur within the RSFO planning area, and is mentioned in the DEIS Volume I Chapter 3.7 'Wildlife and Fisheries Habitat' section. It is also identified in Table 3-1 as a Wyoming BLM sensitive wildlife species. |
| 836 - Special Designations–ACECs (7400-7570) | #13899-17 | Additionally, we support ACEC nominations submitted by our organizations in late 2022 and early 2023. Indigenous Land Alliance of Wyoming/Wyoming Outdoor Council, et al, submitted ACEC nominations with a co-stewardship structure for Boar's Tusk and Indian Gap Trail and Wyoming Wilderness Association, et al, submitted ACEC nominations for the Red Desert and Little Sandy. These submissions largely overlap with proposed BLM ACECs (South Wind River, Steamboat Mountain, Greater Sand Dunes, Big Game Migration Corridor) and thus serve as further evidence of the relevant and important values of BLM's proposed ACECs. However, the nomination submitted for Red Desert does not entirely overlap with a proposed BLM ACEC, so at a minimum, BLM should retain the eastern portion of the Red Desert Watershed MA (the western portion is proposed to be incorporated into the Steamboat Mountain ACEC) in the final RMP. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836 - Special Designations–ACECs (7400-7570) | #13904-11 | MA 7540 VRM It is not appropriate to designated nearly 300,000 acres of land as a certain VRM just because the lands got lumped together. . Instead VRM classes should be determined by the Visual Resource Inventory and management direction for the individual locations as appropriate. | Management actions for all four alternatives for the South Wind River ACEC are identified in the DEIS in management actions 7538 - 7547. |
| 836 - Special Designations–ACECs (7400-7570) | #13905-8 | We support the establishment of the Great Sand Dunes ACEC (DEIS at 2-185), and its management to protect dunal flockets (vernal ponds) for amphibian and other wetland life. The dune ponds are habitat for the rare Great Basin spadefoot. Given the scarcity of forage within the dunes, the dune areas should be closed to grazing. | Management actions for all four alternatives for the Greater Sand Dunes ACEC are identified in the DEIS in management actions 7446 - 7554. |
| 836 - Special Designations–ACECs (7400-7570) | #13911-2 | BLM Failed to Follow Proper Procedure in Providing Notice to the Public of Areas Proposed for ACEC Designation Pursuant to 43 C.F.R. § 1610.7-2(b), "[t]he State Director, upon approval of a draft resource management plan, plan revision, or plan amendment involving ACECs, shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitation, if any, which would occur if it were formally designated." The Federal Register notice for the Rock Springs Proposed RMP and DEIS provided a list of the proposed ACECs under the preferred alternative and included only the ACEC name, acreage, and short list of vague significant values for the areas. 88 Fed. Reg. 56654, 56654-56655 (Aug. 18, 2023). The Federal Register notice failed to specify the resource use limitation(s) that would occur if the areas were formally designated as an ACEC. Id. The BLM has failed to follow its own procedures for notifying the public about nominated and proposed ACECs and must correct this procedural error. Providing all information in the notice as required by the regulations will properly inform the public of the implications of any ACEC designations and potential restrictions that will be placed on other multiple uses. | Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria. ACEC Environmental Concern Evaluations can be found in Appendix C. Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570. |
| 836 - Special Designations–ACECs (7400-7570) | #13911-4 | i. ACEC's Relevance and Importance Criteria The Coalition directs the BLM to the attached ACEC Table (Attach. 1) that specifically addresses the relevance and importance criteria for each proposed ACEC. In addition, one of the major failings in the BLM's analysis of an area's "relevance" and "importance" is the failure to explain why areas previously proposed for ACEC designation but rejected during the development of the Green River RMP now warrant protection as ACECs in the Preferred Alternative B in this Proposed RMP and DEIS. For example, the Pine Mountain Management Area was "not [previously] recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus would not need to receive the same management emphasis." DEIS at 2-163 (Mgmt. Action #7312). Pine Mountain was maintained as a geographic management unit. Id. The BLM provides no explanation or analysis indicating what | ACEC Evaluations can be found in Appendix C under C.2 and C.5 and for the Greater Red Creek ACEC and Salt Wells ACEC respectively. Management actions for all four alternatives for the Greater Red Creek ACEC is identified in the DEIS in management actions 7418 - 7430 (Pine Mountain Management Area and Salt Well Management Area incorporated into the Greater Red Creek ACEC for Alternative B). |

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| | | has changed in the area to now warrant an ACEC designation, or why the Greater Red Creek area should be expanded to include the rest of the Proposed Salt Wells ACEC. See id. at Appendix C-13 - C-14. | |
| 836 - Special Designations–ACECs (7400-7570) | #13911-6 | Similarly, during the development of the Green River RMP, Sugarloaf Basin was found to "not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in the area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus does not need to receive the same management emphasis. The watershed, scenic, and wildlife resources are determined to be neither more than locally significant nor fragile, sensitive, or rare, when compared to those values found in Currant, Sage, and Red Creeks." Id. at 2-168 (Mgmt. Action #7329) (emphasis added). Under the Green River RMP, the Sugarloaf Basin was only a management area. Id. The BLM provides no explanation or analysis indicating what has changed in the area to now warrant an ACEC designation when it so clearly did not meet the relevant and important criteria in the past. See id. at Appendix C-15 - C-16. | ACEC Evaluations can be found in Appendix C under C.2 and C.6 and for the Greater Red Creek ACEC and Sugarloaf Basin ACEC respectively. Management actions for all four alternatives for the Greater Red Creek ACEC is identified in the DEIS |
| 836 - Special Designations–ACECs (7400-7570) | #13911-7 | The BLM previously concluded that "[a]lthough the Monument Valley area has unique scenic features and has the apparent high potential for significant cultural and paleontological resources, there has been little systematic inventory of these features and resources. This lack of information precludes identification of specific resources that meet the ACEC relevance and importance criteria for designation of ACECs." Id. at 2-171. In Appendix C, the BLM does not describe any new inventory of "significant cultural and paleontological resources" and instead bases the ACEC designation on the qualities associated with the Adobe Town Wilderness Study Area ("WSA"). Id. at Appendix C-26. The DEIS fails to explain why the Checkerboard lands to the north of the WSA warrant ACEC designation or why the WSA designation is insufficient to protect the resources of concern | ACEC Evaluations can be found in Appendix C under C.11 for the Monument Valley ACEC. |
| 836 - Special Designations–ACECs (7400-7570) | #13911-8 | The other majoring failing of BLM's ACEC analysis is that it has not been able to show that relevant resource value to be protected had more the local significant importance or it was otherwise so rare and irreplaceable that additional protection was necessary. One of the main rationales given for the Proposed ACECs is to protect specific wildlife habitat, including raptor nesting areas, big game crucial winter range habitat, migration corridors, and sage-grouse priority habitat management areas. However, there is no discussion about how the wildlife habitat within the Rock Springs Field Office is any more significant or important that habitat found in the Little Snake, White River, Pinedale, Kemmerer, or Vernal Field Offices, or any habitat found in any other state. Nor has the BLM been able to explain how the wildlife habitat is so sensitive, rare, or irreplaceable compared to any other habitat found across BLM's public lands. Wildlife habitat in the Rock Springs Field Office does not have "special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource." BLM Manual 1613, Section 11(B)(1). | ACEC Evaluations can be found in Appendix C |
| 836 - Special Designations–ACECs (7400-7570) | #13911-9 | The BLM has layered ACEC designations on top of WSA designations throughout the planning area under Preferred Alternative B. According to BLM's own policies, "[a]n ACEC designation will not be used as a substitute for wilderness suitability recommendations." BLM Manual 1613, Section 06. While ACECs may be designated within WSAs, "[i]f an ACEC is proposed within or adjacent to a [WSA], the RMP or plan amendments shall provide a clear description of the relationship of the ACEC to the recommendations being made for the WSA." Id. at Section 33.D. One thing to consider when determining the appropriate management prescriptions for a Proposed ACEC is if the area includes "an area recommended for designation (or already designated)" and if the "management under the other designation afford sufficient protection of potential ACEC values." Id. at Section 22.A.6. | ACEC Evaluations can be found in Appendix C |
| 836 - Special Designations–ACECs (7400-7570) | #13911-10 | The other resource values requiring protection in the ACEC analysis include areas of cultural significance, such as rock art panels, petroglyphs, and other geological features, as well as historic trails. While the Coalition does not object to the relevance and importance of some of these sites, it does not agree with the expansive additional acreage proposed under Preferred Alternative B. In its analysis, the BLM fails to recognize the statutes that protect these types of sites. For example, Cedar Canyon, La Barge, Sugarloaf, Tolar, and White Mountain, which are areas that contain rock art and petroglyphs, are already protected by the Archaeological Resources Protection Act ("ARPA"), 16 U.S.C. §§ 470aa-470mm, and the National Historic Preservation Act ("NHPA"), 54 U.S.C. §§ 300101-300315; 36 C.F.R. Part 800. In addition, under all alternatives, the BLM proposes to manage rock art sites and their surrounding viewshed "to protect their cultural and historical values" by prohibiting surface occupancy, placing a no surface occupancy for fluid minerals, designated it as a right-of-way exclusion area, etc. DEIS at 2-91 - 2-92 (Mgmt. Action #5100). The BLM must show additional special management is required to protect these resources or that the current laws are inadequate to protect them before designating them as ACECs. | ACEC Evaluations for Cedar Canyon, La Barge, Sugarloaf, Tolar, and White Mountain can be found in Appendix C. |
| 836 - Special Designations–ACECs (7400-7570) | #13911-11 | Finally, national historic trails and wagon roads are also protected by the NHPA and do not necessitate a large swath of land to be designated as an ACEC to protect the trails themselves. Pursuant to the National Register Bulletin #15, a trail must also retain its integrity to be considered in the National Register of Historic Places. A trail must still be well-established or still visible, and not obscured by modern use. For those that are visible, a ¼ mile buffer on each side of the trail is only warranted pursuant to the National Trails Act. See e.g. 16 U.S.C. § 1244(a)(3) ("The authority of the Federal Government to acquire fee title under this paragraph shall be limited to an average of not more than ¼ mile on either side of the trail."). In addition, the BLM fails to explain why the National | Management actions for all four alternatives for the South Pass Historic Landscape ACEC is identified in the DEIS in management actions 7498 - 7503. Appendix C under C.21 details the South Pass Historic Landscape ACEC evaluation. |

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| | | Historic Trails within the Proposed South Pass Historic Landscape ACEC would require an additional 50,000+ acres under the Preferred Alternative B to protect trails that any many places are no longer visible. See DEIS at 2-195 (Mgmt. Action #7498 - expanding South Pass ACEC from 53,940 acres to 171,300 acres under Preferred Alternative B). | |
| 836 - Special Designations–ACECs (7400-7570) | #13912-5 | The Draft EIS fails to analyze and address the negative effects that the imposition of new ACECs within the Rock Springs Field Office checkerboard area will have on the access to, and the economic development and or use of, private lands within, and affected by, the checkerboard pattern of the ACECs. | Management actions for all four alternatives for the Greater Red Creek ACEC is identified in the DEIS management actions 7300 - 7348. |
| 836 - Special Designations–ACECs (7400-7570) | #13912-12 | In general, BLM has avoided designation of ACECs in the checkerboard area for the precise reason that special management of an ACEC most often requires, depending on the resource, jurisdiction of numerous contiguous blocks of land. BLM's forbearance when it comes to ACECs on checkerboard lands would be reversed under Alternative B. BLM proposes to designate: * The Currant Creek and Sage Creek Portion of the Greater Red Creek ACECs that will extend from the south into checkerboard lands; * The Monument Valley ACEC extending from the south into the checkerboard area on the eastern edge of the planning area; and * The Big Game Migration Corridor ACEC intruding onto the checkerboard lands from the north in an area east of State Highway 191 and running almost as far south as Interstate 80. | ACEC Evaluations can be found in Appendix C. Impacts from all proposed alternatives can be found in Chapter 4. |
| 836 - Special Designations–ACECs (7400-7570) | #13912-13 | The area would also be designated as visual resource management ("VRM") class II (MA# 7557), so that no activity would be allowed that might attract the attention of the casual observer.2 Specific to the class II designation, the decision does not align with the visual resource inventory ("VRI") class designations for the area of the Big Game Migration Corridor ACEC within the checkerboard. See Draft EIS, Map 3-16. Much like VRM classes, VRI classes-which BLM determines under a thorough rubric-are listed from I through IV with lower numerals representing areas of higher interest. BLM Manual H-8410-1 V.A.1. Most of the Big Game Migration Corridor ACEC falls within VRI class III designations, but BLM proposes to designate those same areas as VRM class II. | Management actions for all four alternatives for the Big Game Migration Corridor ACEC is identified in the DEIS in management actions 7555 - 7562. |
| 836 - Special Designations–ACECs (7400-7570) | #13912-14 | Draft RMP, Map 2-18, Map 3-16, Appx C-64. BLM offers no explanation for this misalignment. And without an explanation, no interested party can adequately assess or comment on the difference. And if the rationale for VRM class II designation is simply that the area is an ACEC, BLM has failed to meet FLPMA's requirements. Draft RMP, 4-147. Under FLPMA, BLM must properly determine the range for both the size and prescription type of each ACEC. If some portion of or the entirety of an ACEC is not founded on a visual resource, BLM cannot implement visual restrictions in those ACEC areas on the basis of special management of the ACEC. Because BLM both fails to explain why it deviated from the VRI class III designations and has, perhaps, simply used a blanket VRM class II designation for the entire ACEC, the proposed RMP fails FLPMA and its required processes. | Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria. ACEC Evaluations can be found in Appendix C. |
| 836 - Special Designations–ACECs (7400-7570) | #13912-15 | Further, even though BLM may have identified a relevant resource (the big game migration corridor) that has sufficient importance (is more than locally significant), BLM fails to explain why this resource now demands special management when it has been effectively managed for decades to ensure adequate mitigation on a project-by-project basis through the application of seasonal restrictions and other mitigation measures. As discussed above, Sweetwater has long been a supporter of WGFD and BLM efforts to effectively study big game and protect the integrity of the migration corridor. BLM makes no attempt whatsoever to explain how new restrictions, which amount to a de facto wilderness designation, are required, in particular on the checkerboard areas where BLM controls only half of the surface. Sweetwater Royalties strongly urges BLM to eliminate the proposed Big Game Migration Corridor ACEC, or at least limit its designation only to those areas north of the checkerboard lands and overlapping with other historic and biologically significant areas along the Wind River Front and through the South Pass area. | Management actions for all four alternatives for the Big Game Migration Corridor ACEC is identified in the DEIS in management actions 7555 - 7562. ACEC Evaluation for the Big Game Migration Corridor can be found in Appendix C under C.26. |
| 836 - Special Designations–ACECs (7400-7570) | #13913-6 | Lastly, BLM has recently issued interim guidance regarding ACECs and land-use planning, which notes that the agency should identify if the relevant and important values of an ACEC have "substantial significance to Tribes"6 and could "support Tribal co-stewardship or traditional and customary uses"7. In the consultation BLM undertakes with Tribal Nations between this public comment period and the record of decision, we encourage the agency to inquire about interest in Tribal co-stewardship for these ACECs that may have substantial significance to Tribal Nations. During this process, BLM should take under consideration recommendations made in a recent report commissioned by the National Association of Tribal Historic Preservation Officers (NATHPO) and The Wilderness Society, which discusses obstacles, and their solutions, for BLM and Tribal Nations co-management or co-stewardship.8 | MA#5200-5202 and H.R.#3, 4, & 14-16 address consultation and relationship with Native American tribes. MA#7400-7570 (Special Designations - ACECs) discuss the full range of alternatives considered in the EIS. Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria |
| 836 - Special Designations–ACECs (7400-7570) | #13918-1 | We also disagree with BLM’s assessment that livestock grazing will not be significantly affected by such a vast designation of ACECs. We believe that ACEC designation will ultimately be used to prohibit ranchers’ ability to make rangeland improvements, which are vital to reducing landscape impacts. | Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570 |

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| 836 - Special Designations–ACECs (7400-7570) | #13925-8 | The ACEC boundaries must be the smallest area necessary. Neither AMS or the DEIS document efforts to tie the size to need for special management. Instead, Alternative B grossly inflates the size of the ACECs to more than half of the entire Field Office. | ACEC Environmental Concern Evaluation can be found in Appendix C. Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570 |
| 836 - Special Designations–ACECs (7400-7570) | #13925-22 | Bryan to South Pass Stage Road, Indian Gap Trail, Crookston Homestead These trails and sites are important but do not warrant 12,927 acres of ACEC designation. The Crookston Homestead (approximately 40 acres) is currently on the National Register of Historic Places and is therefore protected under the NHPA. If the trails are visible, they too are protected under NHPA rules. A working natural gas field should immediately preclude this area from being designated as an ACEC. BLM has provided no information as to what benefit designation will provide that would outweigh the socioeconomic benefits of leaving the area to be managed as an SRA. The SRA sees more than 10,000 user days a year. | ACEC Environmental Concern Evaluation for the Eastern portion of the Greater Sand Dunes ACEC Evaluation can be found in Appendix C under C.7. |
| 836 - Special Designations–ACECs (7400-7570) | #13925-23 | Western Greater Sand Dunes The Indian Gap trail does not support the entire ACEC. The trail is largely unrecognizable and segmented and currently protected under existing statutory schemes. A single feature cannot be used to manage more than 28,000 acres as an ACEC. Even so, Boars Tusk is entirely circumscribed by Chilton Road and the larger area is crisscrossed by roads. The Boars Tusk feature is not part of the Buffalo Hump WSA.RSGA does not believe that "overlapping resources" in "unique juxtaposition" fall under FLPMA definition of an ACEC, even assuming this is more than "word salad." Without support for special management, this area will not qualify as an ACEC. Moreover, the area appears to be primarily protected by WSA designation. and thus an ACEC designation is not needed. | Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria. ACEC Environmental Concern Evaluation for the Western portion of the Greater Sand Dunes ACEC Evaluation can be found in Appendix C under C.8. |
| 836 - Special Designations–ACECs (7400-7570) | #13925-24 | Boars Tusk as part of Greater Sand Dunes ACEC The Boars Tusk ACEC could be extracted from the surrounding area. This would allow the specific site to be protected without blanketing the larger area with unnecessary restrictions. The DEIS fails to document the need for special management. | Management actions for all four alternatives for the Boars Tusk Portion of the Greater Sand Dunes ACEC are identified in the DEIS in management actions 7455 - 7470. |
| 836 - Special Designations–ACECs (7400-7570) | #13925-25 | Crookston Homestead as part of Greater Sand Dunes ACEC RSGA believes the Crookston Homestead ACEC should be separate and extracted from the surrounding area. This would allow the specific site to be protected without blanketing the larger area with unnecessary restrictions. | Management actions for all four alternatives for the Crookstone Homestead Portion of the Greater Sand Dunes ACEC are identified in the DEIS in management actions 7471 - 7476. |
| 836 - Special Designations–ACECs (7400-7570) | #13927-1 | Overall, we support the recommendations for the GLMA made by the GLMC and the Wyoming Governor's Task Force. However, in the Currant Creek Portion of the Red Creek ACEC, Sage Creek Portion of the Red Creek ACEC, and Pine Mountain Management Areas - because of the unique and sensitive nature of the CRCT habitat found in these areas as well as TU's long track record of investment in habitat restoration in collaboration with the BLM, state agencies, industry, and private landowners - we ask that you consider making lands in these areas unavailable for leasing to provide greater protection than No Surface Occupancy stipulations. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836 - Special Designations–ACECs (7400-7570) | #13940-2 | For many of the ACECs, the BLM has failed to adequately explain a proposed area's "relevance" and "importance." One glaring issue is providing any analysis as to why certain areas proposed for ACEC designation under the previous Green River RMP, but rejected, now warrant ACEC designation in this RMP. For example, the Pine Mountain Management Area was "not [previously] recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. | ACEC Evaluations can be found in Appendix C under C.2 for the Greater Red Creek ACEC. Management actions for all four alternatives for the Greater Red Creek ACEC is identified in the DEIS in management actions 7418 - 7430 (Pine Mountain Management Area incorporated into the Greater Red Creek ACEC for Alternative B). |
| 836 - Special Designations–ACECs (7400-7570) | #13940-3 | even if a nominated area meets the relevance and importance criteria for the ACEC, the BLM must still consider whether "special management" is required "to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish, wildlife, and plant resources, or other natural system or processes." 43 U.S.C. §1702(a); see also BLM Manual 1613, Section 12. The BLM ignores this portion of the analysis and fails to consider how the relevant resources are already protected under existing statutes, regulations, and/or existing management actions. Most of the proposed ACEC acreage is already protected through a Wilderness Study Area ("WSA") designation or protected by the Archaeological Resources Protection Act ("ARPA") | Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria. ACEC Evaluations can be found in Appendix C. |
| 836 - Special Designations–ACECs (7400-7570) | #13951-13 | Pages 174-212; Special Designations 7400-7570. Specifically SD #'s 7418, 7419, 7421, 7423, 7426, 7430, 7431, 7432, 7433, 7447. -Shortly after my parents purchased the historic Brooks Ranch, we tried to fence along Gooseberry Creek to keep the cattle from going where they weren't supposed to be and to protect the stream in the very area in Sage Creek and that portion of the Mellor Mountain Allotment that this plan would like to take away from us. At the time, we were not allowed to do that because the fence would interfere with the migration of wildlife and game animals. So everyday, there was a horseman down there moving the cows up the hill. As a result, and after more than $8000 in legal fees in the early 1990's and a substantial amount of time, the BLM's decision was to relocate some of those AUMs. We agreed to the terms and have been compliant ever since. We've added sheep to improve vegetation and rangeland health. The sheep eat weeds and cheatgrass early in the spring before the cattle are dispersed and the stream is at PFC. Livestock are a proven tool in helping maintain a healthy and beautiful landscape where wildlife and big game also thrive. Now, Alternative B is calling for a fence for preservation. What about ALL of the wildlife, including the controversial sage grouse and those species that are | Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. Chapter 1 Section 1.4 Planning Criteria of the DEIS recognizes the State's responsibility and authority to manage wildlife. |

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| | | attracting the media; that would be in eminent danger with a fenced enclosure? That's going to be mandated now? What is the justification for excluding grazing and replacing it with Alternative B's goals of catering solely to the recreational user and protecting the scenic qualities? Alternative A is a much better option at this point. The BLM already has measures in place to see if rangeland health objectives are being met. I am against any and all expansions of the ACEC's and I'm also against increasing restrictions, such as the VRM2 would do. | |
| 836 - Special Designations–ACECs (7400-7570) | #13953-15 | ACEC designations by themselves do not change the management prescriptions or use of public lands. According to land use planning regulations 43 CFR § 1610.7-2(b), the BLM "shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitations, if any, which would occur if it were formally designated." Reviewing the notice in the Federal Register should lead every reader to the conclusion that the ACECs proposed for the Rock Springs RMP area do not contain any resource use limitations. The notice provides the following description: * Cedar Canyon ACEC: 2,540 acres with significant cultural, scenic, and wildlife values. * Greater Red Creek ACEC: 468,170 acres with significant historic, cultural, paleontological, wildlife, and scenic values. * Greater Sand Dunes ACEC: 39,290 acres with significant historic, cultural, geological, and wildlife values. * Natural Corrals ACEC: 1,110 acres with cultural, historical, recreational, wildlife, scenic, and geological values. * Oregon Buttes ACEC: 3,440 acres with significant historic, cultural, wildlife, and scenic values. * Pine Springs ACEC: 6,480 acers with historic, cultural, and paleontological values. * South Pass Historic Landscape ACEC: 171,300 acres with significant cultural, scenic, and wildlife values. * Special Status Plant Species ACEC: 3,610 acres with significant Special Status Species value. * Steamboat Mountain ACEC: 439,330 acres with significant historic, cultural, wildlife, and scenic values. * White Mountain Petroglyphs ACEC: 20 acres with significant Native American concerns and scenic values. * South Wind River ACEC: 374,710 acres with high value air, cultural, biodiversity, and visual resources. * Red Lake East Sand Dunes ACEC: 22,340 acres with scenic and wildlife values. * Big Game Migration Corridor ACEC: 226,335 acres with wildlife and biodiversity values for the protection of big game. * Big Sandy Openings ACEC: 2,020 acres with scenic, watershed, and geologic values. * Pinnacles ACEC: 1,340 acres with scenic, paleontological, and wildlife values. * Monument Valley ACEC: 69,960 acres with wildlife, geologic, cultural, and paleontological values. As shown, there is no resource limitation provided for any of the proposed ACECs. The notice only gives a broad statement of the generic resource value that is being proposed for protection from irreparable damage. However, if one reads through the Draft RMP they will find that the BLM is proposing substantial limitations across the proposed ACECs. | Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria. Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570. |
| 836 - Special Designations–ACECs (7400-7570) | #13953-16 | Beyond the deficiency of notice, the Draft RMP fails to explain what irreparable damage the resource limitations are attempting to address. This is the fundamental question for determining the need for anACEC. If there is no special management attention required to protect and prevent irreparable damage, there is no basis for the establishment of an ACEC. It is highly unlikely that a newly proposed ACEC that is wholly inside an existing ACEC designation with identical resource limitations is facing irreparable harm. This would eliminate the need for Boar's Tusk, Crookston Homestead, The Pinnacles and others that are already within existing ACEC designations. Additionally, ACEC designations that are in areas designated as wilderness or in areas managed as wilderness under a wilderness study area are likely without justification when considering potential for irreparable damage. | ACEC Evaluations can be found in Appendix C. |
| 836 - Special Designations–ACECs (7400-7570) | #13953-18 | While the WCCA can appreciate the BLM's authority in designating ACECs the substantial acreage proposed would triple the acreage designated as ACECs and would pose a substantial economic burden on the people and industry in the Rock Spring RMP area. Without belaboring the point, the socioeconomic impact analysis present in the Draft RMP is lacking a comprehensive view of overlapping restrictions. It is therefore highly likely that the impacts to our communities will be substantially more severe than described. | The socioeconomic impacts for Alternative B are detailed in Chapter 4 Section 4.23.5. |
| 836 - Special Designations–ACECs (7400-7570) | #14023-5 | I recommend that the BLM reassess the District's lands for ACEC designation with equal weight given to existing and long-term values generated by sustainable surface uses as those customarily attributed to underground, highly impactful, extractable resources. * I recommend that the existing ACEC boundaries be retained and expanded if-and- when new supportive data becomes available. | ACEC Evaluations can be found in Appendix C. Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570. |
| 836 - Special Designations–ACECs (7400-7570) | #14026-3 | BLM proposes in this alternative, among other restrictions, to increase the size of Areas of Critical Environmental Concern (ACECs) in the region from the current 286,470 acres to over 1.605 million acres-44% of the 3.6 million acres covered by this Draft RMP/EIS.9 ACECs historically are managed to limit uses such as recreation, mineral and oil and gas production, agriculture, and electricity infrastructure siting. NRECA urges BLM to withdraw this proposed ACEC designation; or, if BLM proceeds with the designation, it should work with all stakeholders in the region to determine the appropriate size of the ACEC and to allow major and principal uses as detailed under FLPMA to continue in that region. NRECA further requests detailed information about how the preferred alternative's ACEC designation would affect electricity transmission, distribution, and project siting in the area, as well as how it may impact access to Rights-of-Way ("ROW") and vegetation management and grid hardening practices. | Adherence to applicable laws, regulations, and policies is addressed in Chapter 1 under 1.4 Planning Criteria. Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570. |
| 836.01 - Cedar Canyon ACEC | #13210-106 | 7404 Alternative B Retain the Cedar Canyon ACEC designation (Table 2-12, Appendix V and Map 2-30). Alternative B is preferred because it retains Cedar Canyon ACEC while Alternative C and D do not. | Management actions for all four alternatives for the Cedar Canyon ACEC are identified in the DEIS in management actions 7404 - 7417 |

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| 836.01 - Cedar Canyon ACEC | #13665-17 | The same is true for the 2,550-acre Cedar Canyon ACEC.15 It also is currently designated as an ACEC in the Green River RMP. Under that RMP, however, "the BLM-administered public lands in the ACEC are open to consideration for mineral leasing with restrictions to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values." Id. at 2-174. Now, BLM's Alternative B proposes to "[c]lose the BLM-administered public lands in the ACEC to mineral leasing to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values." Id. The only justification BLM offers is that "additional management would allow for greater habitat protection." Id. at 4-72; see also id. at C-4-C-5. That is inadequate. BLM's proposed exclusion of all impacts from "human presence," including oil-and-gas development, in these and other ACECs is unwarranted and runs directly contrary to FLPMA's multiple-use mandate and BLM's obligation to foster mineral development on public lands | The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. Management actions for all four alternatives for the Cedar Canyon ACEC are identified in the DEIS in management actions 7404 - 7417. |
| 836.01 - Cedar Canyon ACEC | #13925-11 | Cedar Canyon 5,241 Acres DEIS App. C-4 The Task Force supported the ACEC. There are still problems however with BLM documentation. The 1997 Green River RMP only identified 2,550 acres for this ACEC. There is no explanation for doubling the area to be protected. BLM does not explain why existing law including civil and criminal penalties are insufficient. BLM should return the ACEC to the original 2550 acres. There is no special management needed since the rock are panels are protected under ARPA and NHPA, including civil and criminal penalties. Native American Rock Art Panels as particular sites meet importance criteria but evaluation form does not document the basis to increase the proposed ACEC size to 5,241 acres. | Acreage determinations can be found in Appendix V Tables for the Cedar Canyon ACEC. Management actions for all four alternatives for the Cedar Canyon ACEC are identified in the DEIS in management actions 7404 - 7417. |
| 836.01 - Cedar Canyon ACEC | #13940-4 | Cedar Canyon, La Barge, Sugarloaf, Tolar, and White Mountain, which are areas that contain rock art and petroglyphs, are already protected by ARPA and NHPA. In addition, under all alternatives, the BLM proposes to manage rock art sites and their surrounding viewshed "to protect their cultural and historical values" by prohibiting surface occupancy, placing a no surface occupancy for fluid minerals, designated it as a right-of-way exclusion area, etc. DEIS at 2-91 - 2-92 (Mgmt. Action #5100). And notably, these protections are limited to the actual site without overly expanding it to include thousands of additional acres like the proposed ACEC designations. The BLM must show additional special management is required to protect these resources or that the current laws are inadequate to protect them before designating and/or expanding any of these areas as an ACEC. | Acreage determinations can be found in Appendix V Tables for the Cedar Canyon ACEC. Management actions for all four alternatives for the Cedar Canyon ACEC are identified in the DEIS in management actions 7404 - 7417. |
| 836.02 - Greater Red Creek ACEC | #13210-107 | 7418 No Alternative The task force voted to support the adjustment of the northern boundary to exclude the checkerboard lands from the ACEC, but as a standalone action, not tied to any of the existing alternatives. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13210-108 | 7421 Alternative D Allow surface disturbing activities only if they protect or enhance ACEC values. Close to fluid mineral leasing Petition to segregate and pursue a withdrawal from mineral location. Close to oil shale leasing. Designate as a ROW avoidance area. Designate as VRM Class II. Closed to Coal Leasing See also management action 7418 There are no active oil and gas leases or coal development potential in the area. The task force supported Alternative D out of recognition of the work of the Little Mountain Coalition. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13210-109 | 7429 Alternative D No similar action Alternative D is preferred because it does not mandate management prescription on the land unlike Alternatives A and B. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13210-110 | 7433 Alternative A No similar action Alternative A is preferred because it does not affect grazing while Alternative B would prohibit it in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13210-111 | 7438 Alternative A No similar action Alternative A is preferred because it does not affect grazing while Alternative B would prohibit it in the Jane's Meadow and Upper Currant Creek Pastures within the Sugarloaf Grazing Allotment. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13210-112 | 7443 Alternative D Require the completion of a grazing management plan prior to any annual authorization for livestock use in the allotment. A grazing permitee, in collaboration with BLM and WGFD, has made significant positive improvements to the land and any other alternative would be very detrimental to that work. Alternative D is preferred because it allows this permittee to responsibly graze the allotment in question. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13210-113 | 7444 Alternative D No similar action Alternative B would pursue the acquisition of the state parcel, Alternative D is preferred because it includes no similar action. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13287-38 | In addition, the same direction proposed for the Salt Wells unit of the Greater Red Creek proposed ACEC should be applied here, as this area provides important habitat for the Steamboat Mountain herd of desert elk. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.02 - Greater Red Creek ACEC | #13769-5 | We have previously expressed our concern about the permeance of an ACEC designation. Now we express our concern about the future actions of a neighboring landowner in response to the BLM's selection of alternative B especially proposed management action 7443 - prohibit livestock grazing in the Red Creek allotment. While we endorse the conservation intent of Alternative B, we urge the BLM to reconsider the decision to revoke the grazing permits near the Red Creek ACEC. We believe that the BLM has erred in its expressed conservation intent by | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |

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| | | adopting a management option (7443) that punishes a Department of the Interior landowner-of-the-year by revoking his (never used) grazing permits. This landowner has not only cooperated with the BLM and Wyoming Game and Fish, but he has matched conservation funds. These actions and the landowner's progressive management are restoring a severely degraded riparian area and a watershed that has the purest strain of Colorado River Cutthroat trout. This landowner's management approach should be promoted as a demonstration of compatible conservation and livestock production. The last thing we need on the edge of the Red Creek ACEC is for the landowner to sell to a developer. Then we will have a subdivision that undoes all the conservation work he has done in taking three decades of non-use. | |
| 836.02 - Greater Red Creek ACEC | #13783-28 | The Salt Wells Area ACEC Designation is Too Expansive and Not Adequately Supported. Wexpro specifically opposes Alternative B's proposal to designate the Salt Wells ACEC, which overlaps with its leases and authorized development in the Vermillion Field. See Draft EIS, Appx. C at C-13 to C-14. In the below map, the Vermillion units are shown in color blocks, and the proposed ACEC is the red shaded area that intrudes from the northwest into the field. This map is also included in the map appendix to this letter. The Draft RMP describes the 249,326-acre Salt Wells ACEC as an expansion of the current 64,200-acre Pine Mountain management area. When BLM considered this same area in 1997 for the Green River RMP, it explained that the Pine Mountain management area did not meet the criteria for designation as an ACEC because it did "not contain the same sensitivity of resources found in Greater Red Creek [which was designated to protect watershed resources], even though the watershed resources in this area are interconnected with those of Greater Red Creek." GR RMP at 37-38. And no other resources demanded special management. Without explaining what has changed from then to now, or how the Salt Wells resource values are under threat or in need of special management, BLM now proposes a vastly expanded ACEC to include the Salt Wells area. BLM cites the presence of several resources in the ACEC without detail or geographic delineation-none of which justify the ACEC. As discussed in detail below with respect to each resources, BLM references several historic trails, a historic road, wildlife habitat (raptor nesting area, sage-grouse core areas, and big game crucial habitat), stands of junipers, an impaired and unnamed stream, fossil assemblages, fragile soils and steep cliffs, and an area of pine bark beetle kill with increased risk of wildfire. Draft EIS, Appx. C at C-13 to C-14. BLM fails to claim relevance and importance for several or the resources (both of which are required for ACEC designation, see Section II.B above), including for the juniper stands, impaired stream, fossil assemblages, and area of pine bark beetle infestation. Thus, none of these one-and-not-the-other qualities can form the basis of an ACEC. Even where BLM lists the resources as both relevant and important, its evaluation is conclusory; lacks the detail necessary to understand the nature, value, and sensitivity of the resource; and fails to outline the special management needs of the resource. Instead, BLM mashes together references to vague and ill-defined resources and generally concludes that an ACEC over the entire 249,326 acres is justified. Draft EIS, Appx. C at C-13. This approach fails to meet BLM's requirement to show both relevance and importance for each specific resource and tie proposed management prescriptions to the special management needs and geographic extent of the resource, while continuing to allow for multiple uses. One question persists for every cited resource throughout the proposed ACEC: What has changed? If relevant and important resources were not identified in the Green River RMP, which concluded that the Pine Mountain and its 64,200 acres should not be an ACEC, what is the basis of its vast expansion and ACEC designation?5 If a quality has become sensitive or has garnered more than local significance since the Green River RMP was completed, BLM should say so. But BLM has not said, and cannot make a case for, designation of the ACEC as a whole, where current management has been sufficient to protect sensitive resources. For each of the resources cited in the proposed Salt Wells ACEC, the following subsections discuss the lack of relevance, importance, or need for special management attention. The final subsection addresses why, even if some or all the resources justify the ACEC, the geographic scope of the designation and proposed management prescriptions are not narrowly tailored to the affected resource-why the designation of the entirety of the area and the elimination of multiple uses is not supported. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13783-30 | Cherokee Trail, Overland Pass Variant, and Browns Park Wagon Road The first resources BLM cites as relevant are intact segments of the Cherokee Trail, Pine Butte Variant of the Overland Pass Trail, and the Browns Park Wagon Road because they have significant historic, cultural, or scenic value. Even if these portions of the trails/road have some cultural or historical significance, BLM's finding that they also meet the importance criteria-i.e., are more than locally significant or warrant protection to satisfy national priorities-is doubtful. Indeed, none of these trail segments, unlike other trails in the Rock Springs RMP planning area, are designated as an NHT.6 The current Green River RMP does not designate any non-NHT trail or road as an ACEC, and BLM fails to explain why these trail segments, which have not received more than local significance and attention now require special management direction.7 Regardless of their designation as an ACEC, activities affecting these trail segments and road will be subject to National Historic Preservation Act Section 106 consultation obligations, which may result in special mitigation to protect the resources. BLM fails to explain why more protection is needed. Only the South Pass Historic Landscape ACEC (located in the northeast corner of the RMP area) has the objective of protecting NHT trails and roads. GR RMP at 33. The ACEC covers only 53,780 acres with a right-of-way exclusion zone limited to just 33,700 acres. Id. It also sits at the confluence of four NHT-designated trails (out of a total of twenty-one nationwide)-the Oregon, Mormon Pioneer, California, and Pony Express. This unique combination of NHT-trails justifies the South Pass Historic Landscape ACEC. The Salt Wells area contains nothing of the like. BLM's | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |

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| | | claim that the Cherokee Trail, Pine Butte Variant of the Overland Trail, and Brown's Park Wagon Road are both relevant and important is also belied by the fact that these trails and roads continue to run through large swaths of the Rock Springs planning area outside of any current or proposed ACECs. BLM fails to explain what about this stretch of the named trails and road create significant historic, cultural, or scenic value while other stretches do not. Nor does BLM explain why special management is needed in this area, as opposed to other areas. And BLM makes no attempt to tie the proposed management prescriptions of the Salt Wells ACEC to the site-specific needs of the trails and road resources. Without claiming what special characteristic warrant special management, ACEC designation on the basis of the trails and road is not justified. | |
| 836.02 - Greater Red Creek ACEC | #13783-31 | In terms of relevant fish and wildlife resources, the Draft RMP cites as support for the Salt Wells ACEC the presence of raptor nesting areas without actually stating where within the proposed ACEC the raptor nesting areas are located. A map of raptor nesting sites (see Draft EIS Map 3-4) shows only two occupied raptor nests sites within the entire Salt Wells area, both prairie falcon nests. This relevance criterion calls for a "habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity." BLM ACEC Manual 1613.11(A)(2). Prairie falcons are not designated as endangered or threatened.8 And the prairie falcon's range spans from Canada to Southern Mexico and from the Pacific Ocean to Nebraska.9 So these two raptor nests are likely not essential for maintaining species diversity. Thus, the occupied prairie falcon nests do not qualify as a relevant wildlife resource. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13783-32 | The Draft RMP also generally identifies the Pine Mountain and the Four J Rim as significant raptor nesting areas, although no specific occupied nests are identified in the RMP. BLM claims these nesting sites are important with more than local significance. But to be more than locally significant, the resource must be so when "compared to any similar resource." BLM ACEC Manual 1613.11(B)(1). BLM does not address why these areas, compared to other nesting areas throughout the Rock Springs planning area, are unique or important. BLM's failure is evident from review of Map 3-4, which shows other areas of far greater concentration of raptor nesting sites than the Salt Wells ACEC. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13783-33 | Even if prairie-falcon-occupied nests and raptor nesting areas in the Pine Mountain and Four J Rim are relevant and important (which BLM concludes without any analysis whatsoever), BLM fails to state why special management is needed now when the area was rejected for ACEC designation in the Green River RMP. The Green River RMP specifically stated that the Pine Mountain management area is not an ACEC because it "does not contain the same sensitivity of resources found in Greater Red Creek[.]" GR RMP at 37-38. If something changed, BLM should clarify. | Management actions for all four alternatives of the Greater Red Creek ACEC are identified in the DEIS in management actions 7418-7445. Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. |
| 836.02 - Greater Red Creek ACEC | #13783-34 | Moreover, BLM fails to make a case for special management need. BLM must state specifically why existing buffers for occupied nests and other seasonal habitat stipulations are not sufficient to adequately protect raptor nests to the extent they are a relevant and important resource. And BLM must also explain why proposed restrictions in the Salt Wells ACEC-i.e., closing the area entirely to oil and gas leasing, excluding new rights of way, and applying a "no new net gain in road" restriction is necessary to protect raptor nesting areas. Indeed, in identifying restrictions for ACECs, BLM should "include more detail than prescriptions for other areas[.]" BLM ACEC Manual 1613.12. Nothing in the Draft RMP offers that information. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13783-35 | Sage-Grouse Core Area or Priority Habitat Management Area The Draft RMP also cites sage-grouse core areas (designated by the state) as a relevant wildlife resource. For importance, BLM cites the sage-grouse Salt Wells priority habitat management area (a federal designation and different from-though overlapping with-the core area) as more than locally significant; fragile, endangered, threatened, or vulnerable; and a national priority. The Draft RMP's opening chapter, however, provides that "[a]ll [sage-grouse] management actions … are outside the scope of this planning effort and are not analyzed," and BLM disclaims any management decisions based on sage-grouse. Draft EIS at 1-3. Indeed, BLM is currently considering changes to the sage-grouse PHMA as part of a separate regionwide planning process.10 BLM has not yet released its proposed sage-grouse RMP amendments, so BLM has not yet disclosed any alternatives with proposed maps, restrictions, and analysis. Outside of the sage-grouse RMP amendment process, accurate comment on a sage-grouse based ACEC is impossible. And "[a] decision made without adequate notice and comment is arbitrary or an abuse of discretion." NRDC v. EPA, 279 F.3d 1180, 1186 (9th Cir. 2002) (citing 5 U.S.C. § 706(2)(A)). BLM's current Wyoming Greater Sage-Grouse RMP11-which designates the PMHAs- and Wyoming's core area designations overlap in both geography and multiple-use purpose. They cover much of Wyoming and the Rock Springs area including Salt Wells.12 And they both seek a balanced, multiple-use strategy. The PHMA's "management priority is: to open to oil and gas leasing, but with restrictions; to exclude or avoid disturbance to sage-grouse and their habitat; and to minimize impacts to PHMA where they cannot be avoided."13 BLM and Wyoming's sage-grouse plans share the same message: multiple use in these areas is authorized, subject to reasonable restrictions for the benefit of sage-grouse. BLM fails to provide any justification for why management under the current PHMA framework is not sufficiently protective of sage-grouse in the Salt Wells area, or why the area must be entirely closed to further oil and gas leasing, rights-of-way, or new roads solely to protect sage-grouse. BLM's designation of an ACEC based on sage- | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |

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| | | grouse presence or PHMA designation is thus without reason and contrary to BLM's disclaimer of management direction based on sage-grouse conservation. | |
| 836.02 - Greater Red Creek ACEC | #13783-37 | Big Game Ranges The final wildlife resource BLM cites as a basis for designating the Salt Wells ACEC is big game crucial winter ranges. Mule deer, pronghorn, and elk populate the ranges within the Salt Wells ACEC. The U.S. Fish and Wildlife Service has designated none of these species as endangered or threatened.14 And because the species lack federal designation, management of these big game species falls to the State of Wyoming, which has delineated seasonal ranges and implementation plans to protect them. Wyoming's management regime calls for balancing multiple-uses.15 Recommendations for management allow for seasonal drilling and even year- round drilling on a limited basis.16 But BLM now intends to use Wyoming's own habitat designations to flout Wyoming's corresponding habitat management plans. Foremost and discussed above, Wyoming-and not BLM-possesses the "unquestioned … 'broad trustee and police powers over wild animals[.]'" Andrus, 627 F.2d at 1248 (quoting Kleppe, 426 U.S. at 545). And FLPMA's regulations also direct BLM to consider "[s]pecific requirements and constraints to achieve consistency with policies, plans and programs of … State and local government agencies[.]" 43 C.F.R. § 1610.4- 4. The current Green River RMP states that big game crucial ranges "will be protected to ensure continued useability by limiting activities during critical seasons of use and by limiting the amount of habitat disturbed." GR RMP at 24. This echoes Wyoming's plan. But now BLM wishes to upend this arrangement in favor of "[p]rohibit[ing] surface disturbing or disruptive activities on big game crucial winter ranges … as identified by WGFD," without explaining why such measures are necessary to manage these habitats. Draft EIS at 2-69. Beyond this pivot towards jettisoning its own duty of multiple-use planning, BLM does not explain why these ranges within the Salt Wells ACEC are important. Demonstrating more than local significance requires comparison with other similar features, and comparing Map 2-30 and Map 3-3 reveals vast ranges outside of any current or proposed ACEC. BLM offers nothing to suggest that the ranges inside the Salt Wells ACEC are somehow unique when compared to ranges outside the proposed ACEC. This lack of distinction (and thus, lack of importance) contradicts any assertion that these areas are in need of special management beyond existing seasonal restrictions. In any case, BLM does not attempt to make the case for special management, failing to even address it. Thus, the presence of big game winter range or other range is not a sufficient basis for an ACEC. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 with the Salt Wells area detailed under C.5 on page 13. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13783-38 | Erodible or Erosive Soil The final resource that BLM highlights as both relevant and important is erodible (or erosive) soil, which may cause landslides. Draft EIS Appx. at C-14. BLM indicates that the soil resource meets the relevance criteria for ACEC designation because it is a natural hazard. Id. But the proposed RMP does not even describe where within the 249,326-acre ACEC the erodible soils are found. In terms of importance, BLM claims erosive soil meet the criteria as fragile or sensitive and are a national priority, again, without explaining where the resource is located or why, in comparison to other areas of erosive soil in the planning area, they warrant special protection here. Id. Though BLM does not say in its ACEC evaluation, the only apparent location the proposed Draft RMP mentions for erosive soils is the Four J Rim. Draft EIS at 2-167. However, the Green River RMP specifically withheld ACEC designation from Four J Rim because its resources were not sensitive enough. GR RMP at 37-38. And BLM fails to explain what has changed, or why existing management direction that restricts surface disturbance on steep slopes or erosive soils is insufficient to protect the resource, regardless of ACEC designation. Thus, erosive soils are not an adequate basis for designating the 249,326 acres as an ACEC. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13783-39 | Failure to Narrowly Tailor Scope and Management. Even if any of the resources discussed above met the relevance and importance criteria for ACEC designation, they do not justify the 249,326-acre size nor draconian restrictions on development across the area. If the trails and road segments demand an ACEC, the ACEC should be limited to the vicinity of the trails and road segments, and management prescriptions limited to protection of those cultural and historical resources. These restrictions would also be confined to preserving certain views and preventing future harm to those specific designated portions. In theory then, an ACEC based on the trails and road would be focused on those areas, covering only a few miles to each side of intact trail with restrictions tailored to the resource. Instead, BLM proposes to designate the vast Salt Wells ACEC, much of which is not even near the trails and road. To the extent BLM was to rely on raptor nesting areas and erosive soils for ACEC designation, the RMP suggests that the only area where those may be located is the Pine Mountain management area (which includes Four J Rim) is 64,200 acres-a quarter of the proposed ACEC. And neither of these qualities seem to implicate Four J Basin, only its rim. These resources might require habitat-based and soil-based management prescriptions, i.e., seasonally restrictions on disruptive activities within a short distance of active nesting sites (GR RMP at 24) or site-specific restrictions on disturbance of steep slopes to prevent further erosion (GR RMP at 21-23). But BLM's proposed ACEC extends far beyond the Pine Mountain and would entirely forbid oil and gas leasing, new rights-of-way, or new roads, far exceeding the management needed to protect the relevant and important resources. Similarly, even if big game ranges are found throughout much of the Salt Wells ACEC (as they are throughout most of the planning area), BLM's blanket prohibition on new activity across the entire ACEC is unsupported where seasonal restrictions may be adequate to protect seasonal wildlife use. BLM does not explain why NO development will be authorized, as opposed to controlled development. In sum, ACEC designation and management demands narrow delineation and tailored restrictions. BLM impermissibly paints with a broad | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |

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| | | brush covering vast areas without adequate analysis or support. Wexpro strongly urges BLM to reject Alternative B and its proposed Salt Wells ACEC designation, which is contrary to FLPMA and BLM regulation and policy. | |
| 836.02 - Greater Red Creek ACEC | #13784-40 | MA#7423, Alt B: "Modify livestock grazing objectives and systems to manage for plant condition and composition most ecologically beneficial to identified wildlife species..." Comment: This Alternative conflicts with existing regulations for Wyoming Land Health Standards. BLM should only modify grazing management after a Standards Determination identifies livestock grazing as the significant causal factor. The RMP can not override BLM's existing regulations. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. The DEIS's adherence to applicable law, regulation, and policy is addressed in Chapter 1 under 1.4 Planning Criteria. |
| 836.02 - Greater Red Creek ACEC | #13784-41 | MA#7433, Alt. B: "Prohibit livestock grazing in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion (Map2-30)." Comment: The Alternative needs to identify the number of AUMs lost, as well as the number of acres in the grazing allotment the BLM would close. Additionally, there's no context as to what the intent behind removing livestock grazing would be in relation to benefiting the Sage Creek ACEC. | Section 4.16.3 of the EIS has been updated as appropriate. Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. |
| 836.02 - Greater Red Creek ACEC | #13784-42 | MA#7438, Alt B: "Prohibit livestock grazing in the Jane's Meadow ad Upper Current Creek Pastures within Sugarloaf Grazing Allotment." Comment: The Alternative needs to identify the number ofAUMs lost, as well as the number of acres in the grazing allotment the BLM would close. Additionally, there's no context as to what the intent behind removing livestock grazing would be in relation to benefiting the Current Creek ACEC. | Section 4.16.3 of the EIS has been updated as necessary. Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7 |
| 836.02 - Greater Red Creek ACEC | #13899-1 | We support maintaining the existing Greater Red Creek ACEC, with adjustments to exclude the checkerboard and renaming it the Little Mountain ACEC as identified in Alternative D, MA 7418. We also support the goals listed for that ACEC, including restoring healthy watershed conditions, and improving cutthroat trout habitat, and support Alternative D's MA 7421 to allow surface disturbing activities only if they protect or enhance ACEC values. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445 |
| 836.02 - Greater Red Creek ACEC | #13899-2 | 13 In the past, BLM has been overly narrow in interpreting the existing 1997 RMP management direction relative to what could be allowed for surface disturbance, even if it benefitted the ACEC goals. A grazing permittee was exploring drilling a new water well in the Currant Creek region of the ACEC, which would help redirect cattle to the uplands and reduce their use and impact in the riparian areas, but the BLM stated it would not be possible based on the existing management direction of surface disturbance. We ask that the final management direction in the[...] Rock Springs RMP ensures that future interpretation will not hamstring rangeland improvement projects that could benefit the ACEC habitats. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445 |
| 836.02 - Greater Red Creek ACEC | #13908-32 | 7421 D Designate as a ROW avoidance area. We recommend it be a ROW exclusion area. Designate as a ROW exclusion area. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445 |
| 836.02 - Greater Red Creek ACEC | #13911-4 | i. ACEC's Relevance and Importance Criteria The Coalition directs the BLM to the attached ACEC Table (Attach. 1) that specifically addresses the relevance and importance criteria for each proposed ACEC. In addition, one of the major failings in the BLM's analysis of an area's "relevance" and "importance" is the failure to explain why areas previously proposed for ACEC designation but rejected during the development of the Green River RMP now warrant protection as ACECs in the Preferred Alternative B in this Proposed RMP and DEIS. For example, the Pine Mountain Management Area was "not [previously] recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus would not need to receive the same management emphasis." DEIS at 2-163 (Mgmt. Action #7312). Pine Mountain was maintained as a geographic management unit. Id. The BLM provides no explanation or analysis indicating what has changed in the area to now warrant an ACEC designation, or why the Greater Red Creek area should be expanded to include the rest of the Proposed Salt Wells ACEC. See id. at Appendix C-13 - C-14. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13915-7 | Currant Creek Portion of the Red Creek ACEC Protecting the Currant Creek watershed is of the utmost importance, especially considering the relative scarcity of sensitive fish and wildlife values found here that are not present throughout the rest of the Rock Springs Field Office. Currant Creek is one of the numerous streams in the GLMA that provides an important stronghold for conservation populations of native Colorado River cutthroat trout (CRCT) as these populations are located in one of the driest regions of CRCT's historic range and are the only remaining population that still occupies this semi-arid zone5. Considerable habitat work has occurred in this watershed to improve and stabilize this sensitive stream. In addition, the area contains critical big game habitat for elk, mule deer, and pronghorn antelope. Maintaining current management will result in the continued improvement of healthy fish and wildlife habitat. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445 with Currant Creek management actions 7434 - 7438. |
| 836.02 - Greater Red Creek ACEC | #13915-8 | Management Recommendations (Management Action 7421): ? At a minimum, No Surface Occupancy (NSO) for Currant Creek ACEC of the Greater Red Creek ACEC ? Maintain ROW exclusion within Currant Creek ACEC for industrial ROW. ? No new leasing of contiguous blocks of land identified in December 2009 letter from BLM to Governor Freudenthal, that fall within the Currant Creek ACEC. Allow for retirement of expiring leases that are adjacent to these contiguous blocks.There are several large, contiguous blocks of unleased parcels including parcels in Marsh Creek, Currant Creek, Sage Creek and Trout Creek. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |

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| 836.02 - Greater Red Creek ACEC | #13915-9 | Management Recommendations (Management Action 7421): ? At a minimum, No Surface Occupancy for the Sage Creek Portion of the Red Creek ACEC ? Upgrade Sage Creek ACEC from avoidance to exclusion for industrial ROW ? No new leasing of contiguous blocks of land identified in December 2009 letter from BLM to Governor Freudenthal, that fall within the Sage Creek ACEC. Allow for retirement of expiring leases that are adjacent to these contiguous blocks. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13915-10 | Red Creek Portion of the Greater Red Creek ACEC The existing Red Creek portion of the Red Creek Area of Environmental Concern (ACEC) has been in place since the BLM adopted the existing RMP in 1997. The original justification for conservation-focused management of these public lands included sage-grouse, raptor nesting habitat, Colorado River cutthroat trout streams, big game crucial winter range and parturition habitat, as well as paleontological resources. These resource values remain today, in part due to management prescriptions designed to retain and enhance fish and wildlife habitat. Management Recommendations (Management Actions 7421, 7439, and 7443) ? ROW: maintain exclusion area for industrial ROW. ? Maintain designated ACEC and fluid mineral withdrawal area. For the public lands encompassed by the existing ACEC, these lands should be unavailable for oil and gas leasing to protect these resource values. ? We also ask that management considerations for this area allow for continued grazing by the current special use permittee. This permittee, the sole private landowner in this area, has demonstrated a strong commitment to conservation stewardship that has benefited and protected the CRCT population in Red Creek, and the ability to continue to graze on a mosaic of private and BLM lands is important to their operations. Upholding this use into the future, which has been demonstrated to be compatible with the aquatic resource values of the area, would prevent any unintended consequences should the land ownership change in the future. Following management action 7443 (requiring the completion of a grazing management plan prior to any annual authorization for livestock use in the allotment is the best path to achieving the BLM and GLMC's goals. It will maintain the existing agreement between the BLM and the landowner that has been in place for 30 years. It will continue the public/private cooperative partnership of the BLM, the Wyoming Game and Fish Department and the landowner that has been so successful. It will provide the BLM with substantial control over grazing on both the public and the private lands in the Red Creek Basin. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13925-12 | there is no documentation supporting the expansion of this area by almost 7,000 acres since its previous designation in the 1997 Green River RMP. Cherokee Trail to the extent it still exists is currently protected under NHPA and rules so special management is not needed. The proposed designation of 30,220 acres is not necessary to protect the trail, most of which has lost its integrity. A much smaller ACEC may be appropriate for the visible segments. Designation for a presumed or hypothetical route would not be appropriate. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13925-13 | Deer and elk habitat Deer and elk habitat is plentiful and the deer and elk occupy diverse areas. There is no documentation of a need for special management. The 2012 ACEC Proposal Evaluation Form fails to document regional or national significance of deer and elk habitat in this particular area. The fact that WGFD supports an ACEC is not sufficient. Deer and elk habitat may be locally important but the BLM has not demonstrated that the habitat is regionally or nationally significant to warrant an ACEC designation. BLM rules do not support an ACEC simply to manage deer and elk habitat. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13925-14 | Jaynes Meadow is identified as conservation area but the form does not describe the need for special management. The 2012 ACEC Proposal Evaluation Form does not document importance. The 2012 ACEC Proposal Evaluation Form fails to explain the special management needed or the size. Presumably the area is much smaller than 30,220 acres. This area was never mentioned in Green River RMP. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13930-1 | [comment:13930-1; 836.02, 836.03]I don't think the B alternative was sufficiently analyzed in regards to the impacts tograzing with the NSO, no early summer grazing in parturition areas, and not grazingstreams not at PFC, and restrictions to fence/wells as tools to distribute cattle off ofriparian areas.[comment:13930-2; 836.02, 836.03][comment end] | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13930-2 | ? The closing of Janes Meadow and Upper Currant Creek pastures does not make sense, because these streams were likely weakened years ago by buffalo and it is not the current cattle numbers which are very minimal every three years. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13930-3 | ? Elk numbers in the Little Mountain area are extremely high, and the browsing pressure is heavy on woody species without cattle grazing. Unless elk numbers are decreased, the browsing levels will likely rarely if ever meet the browsing standards in the GMP for the allotment or be sustainable in the long run. | Chapter 1 Section 1.4 Planning Criteria of the DEIS recognizes the State's responsibility and authority to manage wildlife. |
| 836.02 - Greater Red Creek ACEC | #13930-4 | ? The lower Janes Meadow has slowly had invading Canada thistle issues. The BLM ought to look into studies instead of assumptions and have better rationale other than hypothesis before removing grazing as a way to limit invasive species. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13930-5 | ? This is primarily a no grazing alternative, because the streams are not at PFC requirement and the pastures can't be grazed due to stream condition. It wasn't thoroughly analyzed in the impacts section. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. |

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| 836.02 - Greater Red Creek ACEC | #13930-6 | ? If cattle distribution around water sources was the issue, reducing stocking rates would not necessarily result in much better ecological conditions. So doing a 20% AUM reduction will not necessarily result in better ecological conditions. ? The one-size-fits-all approach may not be addressing issues in allotments of riparian areas and distribution, and removing the tools better at affecting cattle distribution, fence, and offsite water may actually promote decreases in rangeland health. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. |
| 836.02 - Greater Red Creek ACEC | #13943-9 | Protecting the Currant Creek watershed is of the utmost importance, especially considering the relative scarcity of sensitive fish and wildlife values found here that are not present throughout the rest of the Rock Springs Field Office. Currant Creek is one of the numerous streams in the GLMA that provides an important stronghold for conservation populations of native Colorado River cutthroat trout (CRCT) as these populations are located in one of the driest regions of CRCT's historic range and are the only remaining population that still occupies this semi-arid zone. Considerable habitat work has occurred in this watershed to improve and stabilize this sensitive stream. In addition, the area contains crucial big game habitat for elk, mule deer, and pronghorn antelope. Maintaining current management will result in the continued improvement of healthy fish and wildlife habitat. Management Recommendations (Management Action 7421): * At a minimum, No Surface Occupancy (NSO) for Currant Creek ACEC of the Greater Red Creek ACEC * Maintain ROW exclusion within Currant Creek ACEC for industrial ROW. * No new leasing of contiguous blocks of land identified in December 2009 letter from BLM to Governor Freudenthal, that fall within the Currant Creek ACEC. Allow for retirement of expiring leases that are adjacent to these contiguous blocks. There are several large, contiguous blocks of unleased parcels including parcels in Marsh Creek, Currant Creek, Sage Creek and Trout Creek. Sage Creek Portion of the Red Creek ACEC The Sage Creek Portion of the Red Creek ACEC is a rare Native trout stronghold for CRCT. The area contains highly erodible soils. Protecting this native trout population is a key conservation action to prevent further declines across the species range. The area is also crucial winter range and parturition habitat for mule deer and elk. | Management actions for all four alternatives for the Currant Creek Portion of the Greater Red Creek ACEC are identified in the DEIS in management actions 7434 - 7438. |
| 836.02 - Greater Red Creek ACEC | #13943-11 | Management Recommendations (Management Actions 7421, 7439, and 7443) * ROW: maintain exclusion area for industrial ROW. * Maintain designated ACEC and fluid mineral withdrawal area. For the public lands encompassed by the existing ACEC, these lands should be unavailable for oil and gas leasing to protect these resource values. * We also ask that management considerations for this area allow for continued grazing by the current special use permittee. This permittee, the sole private landowner in this area, has demonstrated a strong commitment to conservation stewardship that has benefited and protected the CRCT population in Red Creek, and the ability to continue to graze on a mosaic of private and BLM lands is important to their operations. Upholding this use into the future, which has been demonstrated to be compatible with the aquatic resource values of the area, would prevent any unintended consequences should the land ownership change in the future. Following managementvbaction 7443 (requiring the completion of a grazing management plan prior to any annual authorization for livestock use in the allotment is the best path to achieving the BLM and GLMC's goals. It will maintain the existing agreement between the BLM and the landowner that has been in place for 30 years. It will continue the public/private cooperative partnership of the BLM, the Wyoming Game and Fish Department and the landowner that has been so successful. It will provide the BLM with substantial control over grazing on both the public and the private lands in the Red Creek Basin. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13951-2 | Page 2-179; Management #7423 "Modify livestock grazing objectives and systems to manage for plant condition and composition most ecologically beneficial to identified wildlife species, while also considering the habitat of other species, in areas identified as habitat for Special Status Species, crucial winter range, or parturition habitat for big game." -Alternative A, which manages everything, is a much more rounded and balanced approach when considering plant condition and composition. Why single out a specific species? In this case big game when the elk herds on Aspen are so over-populated they are causing over grazing and the Wyoming Game and Fish are installing 8 ft tall fences around the aspen clones. Moreover, think about the ecological harm done by the excessive wild horses, especially during the winter months. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13951-3 | Page 2-181; Management #7433 "Prohibit livestock grazing in the portion of the Mellor Mountain grazing allotment that intersects the Sage Creek portion (Map 2- 30)." -Any alternative other than B is acceptable. Alternatives A, C, and or D would maintain rangeland health. The stream is at PFC and the sheep help suppress the cheatgrass by grazing in the early summer. So why remove the livestock? They are a tool in helping maintain healthy land conditions despite the disproportionate wild horse herds who dominate and damage riparian areas. It's a proven fact that the wild horses have greater forage needs, graze closer to the ground, use the range year-round, and add harmful impacts to sagebrush and other critical browse species. | Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13951-7 | Page 2-177; Special Designations #7418 "Expand the Greater Red Creek ACEC to include Sugarloaf Management Area and Salt Wells Management Area (468,170 acres, Table 2-12, Appendix V and Map 2-30)." -I am against any expansion of ACEC's in the Greater Red Creek area or expansion of any VRM 2. Expansion of ACECs and increasing restrictions (VRM 2 areas, no surface occupancy) would further limit the tools grazing could use to meet rangeland health objectives (fence, types of fence, placement of range improvements like wells, reservoirs, troughs, etc.). Rangeland health objectives are already in place to see if management is meeting ecology goals, so why do we need more restrictions when elk have increased to the point they are overgrazing the | Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |

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| | | aspen clones to the point where they die off? If big game is thriving to the extent they are damaging their habitat, do they really need more protections than are there currently? | |
| 836.02 - Greater Red Creek ACEC | #13951-8 | Page 2-17; Special Designations #7419 "Manage the Sage Creek, Currant Creek, and Red Creek watersheds in support of watershed stability and Colorado River cutthroat trout habitat management objectives" -Management for watersheds only is shortsighted. Overbrowsing could affect the woody species along streams and actually decrease habitat quality for trout. Hasn't it been one of the goals for the area to improve stream and trout habitat? Limiting the tools livestock operators have (which an ACEC would do in conjunction with sage grouse fence avoidance) would work against improving stream or trout habitat; that's counter productive and works against the ACEC's current goals. In other words, not only is it double speak, but seems to be working against one of the goals of the ACEC while limiting the tools livestock operators have to achieve proper functioning condition (PFC) and rangeland health. | Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.02 - Greater Red Creek ACEC | #13951-9 | Page 2-178; Special Designations #7421 "…Prohibit surface disturbing activities, except for activities intended to protect or enhance ACEC values." -I would prefer a different alternative than B that will not prohibit surface disturbing activities such as drilling a well and limiting the kind of fence that one would be allowed to use. Areas of our allotment that would be VRM 2 on the top of Mellor Mtn. and the Sage Creek pasture may, in the future need solar panels or some other means to supply water to a well for not only our livestock, but for all species who currently drink, and limiting that due to "visibility" does not seem logical nor humane; to say nothing of achieving and maintaining rangeland health. Wells can address livestock distribution in addition to the distribution of other species. Lastly, if only electric fences are allowed, then what do we do about the sage grouse running into it? A well- thought out alternative that takes into consideration the whole picture and all apparent factors would be a sensible approach. | Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.03 - Greater Sand Dunes ACEC | #13210-115 | 7456 Alternative B Designate the Boars Tusk ACEC an exclusion area for ROWs. Close the area to mineral location, mineral material sales and leasable minerals. Pursue a withdrawal from entry under land laws and mineral location. Limit surface disturbing activities to actions that would preserve or enhance the values of the area. Boar's Tusk is a unique geological feature and important to Tribal nations. Alternative B is preferred with clarification that it only applies to the 90-acre Boar's Tusk portion of the Greater Sand Dunes ACEC. | Management actions for all four alternatives for the Boars Tusk Portion of the Greater Sand Dunes ACEC are identified in the DEIS in management actions 7455 - 7470. Management action acreage tables can be found in Appendix V. |
| 836.03 - Greater Sand Dunes ACEC | #13769-5 | We have previously expressed our concern about the permeance of an ACEC designation. Now we express our concern about the future actions of a neighboring landowner in response to the BLM's selection of alternative B especially proposed management action 7443 - prohibit livestock grazing in the Red Creek allotment. While we endorse the conservation intent of Alternative B, we urge the BLM to reconsider the decision to revoke the grazing permits near the Red Creek ACEC. We believe that the BLM has erred in its expressed conservation intent by adopting a management option (7443) that punishes a Department of the Interior landowner-of-the-year by revoking his (never used) grazing permits. This landowner has not only cooperated with the BLM and Wyoming Game and Fish, but he has matched conservation funds. These actions and the landowner's progressive management are restoring a severely degraded riparian area and a watershed that has the purest strain of Colorado River Cutthroat trout. This landowner's management approach should be promoted as a demonstration of compatible conservation and livestock production. The last thing we need on the edge of the Red Creek ACEC is for the landowner to sell to a developer. Then we will have a subdivision that undoes all the conservation work he has done in taking three decades of non-use. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |
| 836.03 - Greater Sand Dunes ACEC | #13878-11 | The agency should also explore ways to trade for or purchase the mineral rights under Boars Tusk that the state owns - that's a special, iconic landmark that no one thinks should be drilled. | Management actions for all four alternatives for the Boars Tusk Portion of the Geater Sand Dunes ACEC are identified in the DEIS in management actions 7455 - 7470. |
| 836.03 - Greater Sand Dunes ACEC | #13899-23 | Of the 16 new or expanded ACECs included in the preferred alternative, 12 are designated in part because of their significance to Tribal Nations. Of particular note, two ACEC nominations for the Rock Springs Field Office - one for the Boar's Tusk (included in the Greater Sand Dunes ACEC) and another for Indian Gap Trail (incorporated into the Steamboat Mountain ACEC) - were proposed by Tribal Members and deserve extra attention when determining if and how these are to be carried forward into the final resource management plan. As tools designed to protect values within the entirety of a landform, ecosystem, or landscape, ACECs have the potential to serve as effective frameworks for implementing Tribal co-stewardship, utilizing special management to holistically protect Tribal Cultural Sites therein. | MA#5200-5202 and H.R.#3, 4, & 14-16 address consultation and relationship with Native American tribes. Management actions for all four alternatives for the ACECs are identified in the DEIS in management actions 7400 - 7570. |
| 836.03 - Greater Sand Dunes ACEC | #13908-1 | In Alternative B, the Little Mountain Ecosystem is included within the 468,170 acre Greater Red Creek Area of Critical Environmental Concern (ACEC). In Alternative D, the Greater Red Creek ACEC would be renamed to the Little Mountain ACEC (108,010 acres). The Departments core recommendations for the Little Mountain Ecosystem include the following: * Make unavailable to fluid mineral leasing. * Manage for No Surface Occupancy. * Designate as a Right-Of-Way exclusion area. * Re-route the ½ mile preferred energy corridor outside of the Little Mountain Ecosystem or, at a minimum, adjacent to existing infrastructure. The Department recommends applying these management actions to the proposed Little Mountain ACEC (current Greater Red Creek ACEC) and the portions of the Sugarloaf Basin and Pine Mountain Special Management Areas that are within the Little Mountain | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7430. |

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| | | Ecosystem. Alternative B includes our primary recommendations but expands those protections to a much larger landscape, where the protections are not essential to sustain robust fish and wildlife populations. | |
| 836.03 - Greater Sand Dunes ACEC | #13925-15 | Bill Pigeon's grave is currently protected under Section 106 of the NHPA. ACEC designation is unnecessary. The grave site is too small to justify an ACEC spanning 104 square miles.Red Creek Wilderness Study Area (WSA) No special management is needed. The Red Creek ACEC is already designated as a WSA. Federal law closed all WSAs to mineral leasing and any mineral development is limited to what was occurring in Oct. 1976. The 2012 ACEC Proposal Evaluation Form adds 12000 acres without explanation. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. |
| 836.03 - Greater Sand Dunes ACEC | #13925-16 | Old Growth Juniper stands can be protected without sweeping ACEC designation. Moreover expanding or protecting old growth juniper may contradict other vegetation management for sage grouse. Junipers are viewed as natural invasives that can change an ecosystem, often to the detriment of other management objectives. Jackson et al. NSF-DEB-9815500- Final Report, Collaborative Research, "Late Holocene Expansion of Utah Juniper in Wyoming: a Modeling System for Studying Ecology of Natural Invasions". | Management actions for all four alternatives for ACECs are identified in the DEIS in management actions 7400 - 7570. Sagegrouse are beyond the scope of this DEIS. |
| 836.03 - Greater Sand Dunes ACEC | #13925-17 | The BLM previously stated that "fragile soils are extremely susceptible to adverse change" without any indication as to what is a "fragile soil", where those soils are, and what constitutes an "adverse change." Thus, the justification is insufficient on its fact to prove importance for designation as an ACEC. | This is addressed in Chapter 4 Page 4-18 Section 4.1.1 under Soil Resources. ACEC Evaluation can be found in Appendix C. |
| 836.03 - Greater Sand Dunes ACEC | #13925-19 | Malinda Armstrong's Grave, Surveyor Mike Gibbons Grave, Cherokee Trail, Logan School House Despite the fact that each of these particular sites are already protected under the NHPA, the draft RMP would layer additional restrictions with an unnecessary ACEC designation. BLM fails to explain why these sites are not adequately protected, especially given civil and criminal penalties. The Cherokee Trail is largely invisible or has been obscured by modern use. The Cherokee Trail does not appear to meet the NPS criteria for recognition. As such it cannot be used to justify the ACEC. These sites are also too small to support the 77,195 acre ACEC. Sage grouse habitat does not support the proposed ACEC designation | ACEC Evaluation can be found in Appendix C. Sagegrouse management actions are being evaluated under separate RMP Amendment (see Section 1.4). |
| 836.03 - Greater Sand Dunes ACEC | #13925-20 | RSGA agrees that wildfire is a threat but wildfire risks are not prevented by ACEC designation. To the contrary, ACEC designation perpetuates the risk of wildfire and this threat does not support ACEC protection. | ACEC Evaluation can be found in Appendix C |
| 836.03 - Greater Sand Dunes ACEC | #13925-21 | The Cherokee Trail and Pine Butte Trail variant have lost integrity and have been obscured by modern use. These segments no longer qualify for historic recognition. Browns Park Road remains a public road and has been largely if not entirely obliterated by modern use. Browns Park is a currently used R.S. 2477 right-of-way and must be treated as a valid existing right. The trail segments, visible or not, do not qualify for ACEC designation. As commented above, old growth juniper stands can be protected and managed without ACEC designation. | ACEC Evaluations can be found in Appendix C under C.2 and C.5 and for the Greater Red Creek ACEC and Salt Wells ACEC respectively. Management actions for all four alternatives for the Greater Red Creek ACEC is identified in the DEIS in management actions 7418 - 7430 (Salt Wells Management Area incorporated into the Greater Red Creek ACEC for Alternative B). |
| 836.03 - Greater Sand Dunes ACEC | #13930-1 | [comment:13930-1; 836.02, 836.03]I don't think the B alternative was sufficiently analyzed in regards to the impacts tograzing with the NSO, no early summer grazing in parturition areas, and not grazingstreams not at PFC, and restrictions to fence/wells as tools to distribute cattle off ofriparian areas.[comment:13930-2; 836.02, 836.03][comment end] | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.03 - Greater Sand Dunes ACEC | #13930-2 | ? The closing of Janes Meadow and Upper Currant Creek pastures does not make sense, because these streams were likely weakened years ago by buffalo and it is not the current cattle numbers which are very minimal every three years. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.03 - Greater Sand Dunes ACEC | #13930-3 | ? Elk numbers in the Little Mountain area are extremely high, and the browsing pressure is heavy on woody species without cattle grazing. Unless elk numbers are decreased, the browsing levels will likely rarely if ever meet the browsing standards in the GMP for the allotment or be sustainable in the long run. | Chapter 1 Section 1.4 Planning Criteria of the DEIS recognizes the State's responsibility and authority to manage wildlife. |
| 836.03 - Greater Sand Dunes ACEC | #13930-4 | ? The lower Janes Meadow has slowly had invading Canada thistle issues. The BLM ought to look into studies instead of assumptions and have better rationale other than hypothesis before removing grazing as a way to limit invasive species. | Management actions for all four alternatives for the Greater Red Creek ACEC are identified in the DEIS in management actions 7418 - 7445. |
| 836.03 - Greater Sand Dunes ACEC | #13930-5 | ? This is primarily a no grazing alternative, because the streams are not at PFC requirement and the pastures can't be grazed due to stream condition. It wasn't thoroughly analyzed in the impacts section. | Greater Red Creek ACEC Evaluation can be found in Appendix C under C.2 page C-7. Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. |
| 836.03 - Greater Sand Dunes ACEC | #13930-6 | ? If cattle distribution around water sources was the issue, reducing stocking rates would not necessarily result in much better ecological conditions. So doing a 20% AUM reduction will not necessarily result in better ecological conditions. ? The one-size-fits-all approach may not be addressing issues in allotments of riparian areas and distribution, and removing the tools better at affecting cattle distribution, fence, and offsite water may actually promote decreases in rangeland health. | Land Health Standards are summarized in Appendix G and Chapter 3 under 3.16 Livestock Grazing Management. |
| 836.04 - Natural Corrals ACEC | #13925-27 | The 1997 Green River RMP only identified 1,276 acres as an ACEC. The DEIS fails to document the expansion for the cultural and paleontological resources that are already within the boundaries of the current ACEC. Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without ACEC designation. It should also be noted that Sage- Grouse habitat, whether priority or general, largely overlaps crucial habitat for wintering mule deer and these areas are therefore already protected | The Natural Corrals ACEC Evaluation is located in Appendix C.12. The area met R&I criteria, see Appendix C. Greater Sage Grouse management actions are being evaluated under separate RMP Amendment process (see Section 1.4). Page 3-5 identifies the recharge area for the town of Superior being partially located on BLM-managed lands. |

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| | | from disturbances. The BLM's 2012 ACEC Proposal Evaluation Form states that the Town of Superior's water supply is recharged by this area. The potential for groundwater recharge is not sufficient given the state regulatory system and BLM's lack of jurisdiction over water quantity or water quality. | |
| 836.05 - Oregon Buttes ACEC | #13925-28 | the area is currently managed as a WSA which precludes any land use that impairs the resources, such as mineral development. Thus, the ACEC designation is unnecessary. The purpose of the ACEC should not duplicate 2015 GrSG ARMPA plus the State's earlier management. The CDNST is not a valid basis to designate the larger area as an ACEC, especially when the trail segment lies within the WSA and enjoys separate statutory protection. | The Oregon Buttes ACEC Evaluation is located in Appendix C.13. Greater Sage Grouse management is being evaluated under separate RMP Amendment (see Section 1.4). |
| 836.06 - Pine Springs ACEC | #539-7 | Another wildlife value the BLM is using to justify these ACEC designations is the fact that these areas are sage grouse PHMA. The science on this matter is not clear according to recent studies coming out of CSU and USU.28 However, early data shows that, if managed properly, grazing can actually be a positive for sage grouse populations. In addition, the BLM and USFWS, and scores of cooperators are currently working on a sage grouse plan for the western states that will address the sage grouse issues and therefore LSGA recommends that 25 RMP/DEIS, Vol. 2, Appendix C, C.17-C.19. It states in part that water related rangeland improvements were "installed to benefit livestock that graze the forage but many also benefit wildlife and generally promote improved rangeland health within the planning area." the BLM not use sage grouse as a reason to designate vast ACECs, but rather it should let the concurrent process work itself out first. | The Pine Springs ACEC Evaluation is located in Appendix C.14. The area met R&I criteria, see Appendix C. Greater Sage Grouse management is being evaluated under separate RMP Amendment (see Section 1.4). |
| 836.06 - Pine Springs ACEC | #13751-174 | MA #7490 SD-29 The 6,030 acres of BLM- administered public lands in the Pine Springs area are designated the Pine Springs ACEC (Table 2- 12, Appendix V and Map 2-29). Industry Position: Not Acceptable Reason: Follows the existing RMP, however the ACEC conflicts with the KSLA which is a higher value resource than the ACEC. Recommend do not retain the ACEC but revert to the original 90 ac ACEC. The ACEC designation would be retained (Table 2-12, Appendix V and Map 2-30). Industry Position: Not Acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained. The ACEC would not be retained. Industry Position: Acceptable Reason: The ACEC conflicts with the KSLA and should be reduced to the original 90 acres. Same as Alternative B Retain the Pine Springs Expanded ACEC and rename to the Pine Springs ACEC. Industry Position: Not Acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained. Alternative C is acceptable. | The Pine Springs ACEC Evaluation is located in Appendix C.14. |
| 836.06 - Pine Springs ACEC | #13751-175 | MA #7491#SD-29, HR-09, HR-16#The Pine Springs ACEC is expanded from 90 acres to 6,030 acres. Industry Position: Not Acceptable Reason: Follows the existing RMP, however the ACEC conflicts with the KSLA which is a higher value resource than the ACEC. Recommend do not retain the ACEC but revert to the original 90 ac ACEC.#Expand the Pine Springs ACEC from 6,030 to 6,480 acres. Industry Position: Not Acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained.#No similar action, the ACEC would not be retained. Industry Position: Acceptable Reason: The ACEC conflicts with the KSLA and should be reduced to the original 90 acres.#Same as Alternative B Industry Position: Not Acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained.#Alternative C is acceptable. | The Pine Springs ACEC Evaluation is located in Appendix C.14. The 90 acres refer to the lands withdrawn. |
| 836.06 - Pine Springs ACEC | #13751-176 | MA #7492#SD-29, HR-07, HR-2.1#The Pine Springs ACEC (6,030 acres) is closed to surface disturbing activities. About 2,000 acres in the area would be closed to exploration and development of locatable minerals and entry under the land laws. Withdrawal from these activities would be pursued. The existing 90-acre withdrawal would be retained. Cultural resource management plans may be written for the site, and interpretive and visitor management efforts may be allowed as necessary (see also Pine Springs ACEC, lands and Realty management and Minerals management discussions). (Surface disturbing activities may include activities associated with mineral exploration and development; construction of roads, pipelines, power lines; mineral material sales; etc.). Industry Position: Not Acceptable Reason: Follows the existing RMP, however the ACEC conflicts with the KSLA which is a higher value resource than the ACEC. Recommend do not retain the ACEC but revert to the original 90 ac ACEC.#Designate the ACEC an exclusion area for: 1) surface disturbing activities that could adversely affect resource values or preclude meeting ACEC management objectives; 2) ROWs. Pursue a withdrawal from mineral location and entry under the U.S. mining laws. Close the area to: 1) mineral material sales for sand, gravel, or other types of construction or building materials; 2) mineral leasing. Retain and petition to extend the withdrawal when it expires. Write cultural resource management plans for the site. Allow interpretive and visitor management efforts as necessary. Industry Position: Not Acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained.#Revoke the existing withdrawal, the ACEC would not be retained. Industry Position: Acceptable Reason: The ACEC conflicts with the KSLA and should be reduced to the original 90 acres.#Same as Alternative B Industry Position: Not Acceptable | The Pine Springs ACEC Evaluation is located in Appendix C.14. The 90 acres refer to the lands withdrawn. |

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| | | Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained.#Alternative C is acceptable. | |
| 836.06 - Pine Springs ACEC | #13787-94 | MA #7491 SD-29, HR-09, HR-16 The Pine Springs ACEC is expanded from 90 acres to 6,030 acres. Industry Position: Not acceptable Reason: Follows the existing RMP, however the ACEC conflicts with the KSLA which is a higher value resource than the ACEC. Recommend do not retain the ACEC but revert to the original 90 ac ACEC. Expand the Pine Springs ACEC from 6,030 to 6,480 acres. Industry Position: Not acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained. No similar action, the ACEC would not be retained. Industry Position: Acceptable Reason: The ACEC conflicts with the KSLA and should be reduced to the original 90 acres. Same as Alternative B Industry Position: Not acceptable Reason: Follows the existing RMP. As presented in C.14 the expansion from 6,030 ac to 6,480 ac adds no value beyond the original ACEC. The ACEC conflicts with the KSLA. The KSLA is a higher value resource. Only the original 90 ac ACEC should be retained. Alternative C is acceptable. | The Pine Springs ACEC Evaluation is located in Appendix C.14. The 90 acres refer to the lands withdrawn. |
| 836.06 - Pine Springs ACEC | #13925-29 | There is no indication that these resources are not adequately protected by the existing WSA management pursuant to 43 U.S.C. §1782, DM 6330. According to the National Park Service, TCP's are best identified by consulting directly with members of the traditional community. The 2012 Form fails to document such consultation. | The Pine Springs ACEC Evaluation is located in Appendix C.14. Section 5.1.3 describes Native American consultation. Wilderness Study Areas may be dismissed or designated as Wilderness by congress at any time and changing designations to these areas are outside of the scope of this DEIS. |
| 836.07 - South Pass Historic Landscape ACEC. Need to chat w/ Cultural. | #13651-20 | MA# HR-10, HR-11, HR12 Page 2-91: HR-10: Preserve and protect the historical remains and historical setting of the South Pass Historic Landscape ACEC. See the ACEC section for management alternatives for these resources. HR-11: Establish appropriate management prescriptions for the South Pass Historic Landscape ACEC. HR-12: Coordinate with recreation and other programs to provide opportunities for public visitation, interpretation, education, and appreciation of the South Pass Historic Landscape ACEC. These Management actions for the South Pass Historic Landscape ACEC are common to all alternatives. They need to link to the current management practices for the already designated South Pass Historic Landscape ACEC. Since these actions are common among alternatives, including no action, the current plan in all its alternatives should include a summary or reference to: 1. How the ACEC is currently protected (HR-10), 2. Specification of what are current management prescriptions (HR-11), 3. A current status of coordination with other programs, and 4. What "opportunities" are already met (HR-12). Documentation of the content of the 1990s RMP and an assessment of its strengths and weaknesses will allow the public and the BLM itself to judge past resource management performance. If management prescriptions were not established or if they were unsuccessful then it would seem that the BLM should address identified needs in the revised RMP.We do not find the material that would allow us to identify problems and judge past resource management performance within in the documents provided for review. Please give a reference to documentation of the current management measures undertaken. It is a contradiction that the no action alternative would require management prescriptions if such are not in place. It seems the alternatives (B, C, D) would need to specify different management prescriptions tied to the alternatives. | The South Pass Historic Landscape ACEC management actions include MA #7498 - MA# 7507. Alternative A describes current management. The South Pass Historic Landscape ACEC Evaluation is located in Appendix C.21. The area met R&I criteria, see Appendix C. The Analysis of Management Situation, Section 2.3.1 describes the current condition of the ACEC. |
| 836.07 - South Pass Historic Landscape ACEC | #13899-18 | South Pass itself, now in the northwestern corner of the Rock Springs Field Office, looks misleadingly commonplace66 for the weight of history it represents. The BLM has preserved the site itself and the experience of the landscape and viewshed around it since 1997. The proposed management in the draft plan's Alternative B appropriately expands upon those decades-old protections to include more of this important landscape. As noted above, we support the expansion of the South Pass Historical Landscape ACEC. | Goals to protect the ACEC are described under SD-30 and SD-31. |
| 836.07 - South Pass Historic Landscape ACEC | #13925-35 | RSGA questions the merit of South Pass Landscape ACEC. This area was part of a study to establish an historic landmark. The study identified lack of private landowner consent and Congress did not pursue designation. An ACEC designation appears to be an end run around the earlier determination not to proceed with landscape landmark, when BLM cannot exercise jurisdiction over the same private land. Many of the "historic" sites being studied for classification are located on private land, where BLM has no jurisdiction. In other cases, apparent trails are not historic but are old sheep herder trails and remnants of sheep camps that do not qualify for protection but are often mistaken for pioneer trails by untrained volunteers. Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without expansive ACECs. | The South Pass Historic Landscape ACEC Evaluation is located in Appendix C.21. |
| 836.07 - South Pass Historic Landscape ACEC | #13940-5 | national historic trails and wagon roads are also protected by the NHPA and do not necessitate a large swath of land to be designated as an ACEC to protect the trails themselves. Pursuant to the National Register Bulletin #15, a trail must also retain its integrity to be considered in the National Register of Historic Places. For those that are visible, a ¼ mile buffer on each side of the trail is only warranted pursuant to the National Trails Act. See e.g. 16 U.S.C. § 1244(a)(3) ("The authority of the Federal Government to acquire fee title under this paragraph shall be limited to an average of not more than ¼ mile on either side of the trail."). The BLM provides no explanation why the National Historic Trails within the Proposed South Pass Historic Landscape ACEC would require an additional 100,000+ acres under the Preferred Alternative B to protect it. See DEIS at 2-195 (Mgmt. Action #7498 - expanding South Pass ACEC from 53,940 acres to 171,300 acres under Preferred Alternative B). | The South Pass Historic Landscape ACEC Evaluation is located in Appendix C.21. |
| 836.08 - Special Status | #13751-177 | MA #7508#SD-34, BR-27, BR-32#The 1,200 acres of BLM- administered public lands in Special Status Plant Species areas are designated an ACEC (Table 2-12, Appendix V and Map 2-29). Industry Position: Not | The Special Status Plant ACEC Evaluation is located in Appendix C.22. |

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| Plant Species ACEC | | acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon that will be misunderstood.#Retain the Special Status Plant Species ACEC (Table 2-12, Appendix V and Map 2- 30). Industry Position: Not acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon.#The ACEC would not be retained. Industry Position: Acceptable Reasons, See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species- specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information.#Same as Alternative B Industry Position: Not acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon.#Alternative C is acceptable. See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. | |
| 836.08 - Special Status Plant Species ACEC | #13751-178 | MA #7509#SD-34, BR-27, BR-32#The BLM-administered public land areas occupied by four Special Status (candidate) plant species are included in the ACEC designation (making up about 66 sites involving about 1,200 acres of BLM- administered public lands). Additional acres may be added to the ACEC, if more of these Special Status (candidate) plant species or their essential habitat areas are found on BLM-administered public lands. Management and protection to actual plant locations is provided for Arabis pusilla, Astragalus proimanthus, Descurainia torulosa, and Thelesperma pubescens (Map 2- 29). Industry Position: Not acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon that will be misunderstood.#Expand the ACEC to include all BLM Special Status plant species on BLM-administered public land areas occupied by those species. Additional areas could be added to the ACEC, if more populations of these Special Status plant species are found on BLM-administered public lands (3,610 acres, Table 2-12, Appendix V, and Map 2- 30). Industry Position: Not acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon.#No similar action, the ACEC would not be retained. Industry Position: Acceptable Reasons, See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species- specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information.#Modify the ACEC to include the Cedar Mountain Easter daisy (Townsendia microcephala) and Green River greenthread (Thelesperma caespitosa) plant species on BLM-administered public land areas occupied by those species (1,120 acres, Table 2-12, Appendix V, and Map 2-32). Industry Position: Not acceptable. Reason: Habitat protection would be best achieved by following the ESA rather than establishing an ACEC with 66 separate polygons. Case-by-case analysis will achieve better performance than a complex ACEC polygon.#Alternative C is acceptable. See MA #4600. Require Special Status plant species review on identified or known vegetation communities on federal land | The Special Status Plant ACEC Evaluation is located in Appendix C.22. |

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| | | surface before any project or activity is approved. If species are determined in the project area, species-specific protective measures would be developed and implemented. For Interrelated or Interdependent Actions and when necessary to comply with the ESA, require inventories for listed or proposed species on identified vegetation communities on split-estate lands before any project or activity is approved (see BLM Manual 6840). If species are found, species-specific protective measures would be developed and implemented in consultation with the USFWS. If Special Status plant species are found during construction, halt all disturbing activities in the inhabited area until species-specific protective measures are developed and implemented. Develop and implement protective measures for listed and proposed species in consultation with the USFWS. Identified vegetation communities may be based on Special Status Plant Species NRCS mapping, ESDs and existing vegetation information (such as NRCS) or site-specific vegetation information. | |
| 836.08 - Special Status Plant Species ACEC | #13925-36 | The areas where these plants occur have not been identified. This is an insufficient basis for a floating ACEC designation. | Appendix C.22 includes maps of the identified areas. |
| 836.09 - Steamboat Mountain ACEC | #13878-6 | As an example, your Steamboat Mt. ACEC goals state the following, but do not recognize that managing for human use is part of protection of other values: SD-35: Enhance and maintain the water quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem. Protect the unique geological and ecological features in the ACEC. SD-36: Maintain the unique diverse habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on stabilized sand dunes along Steamboat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas. SD-37: Provide suitable habitat to maintain or improve the Steamboat elk herd, other big game populations. I recommend including a statement found in MA 6507, under recreational resources, Alternative A with special emphasis on the last statement (bolded.) The Oregon Buttes, Honeycomb Buttes, Steamboat Mountain, Leucite Hills, Red Creek, Pine Mountain, Little Mountain, and Cedar Canyon areas would be managed to assure their continuing value for recreational opportunities. Recreation area management plans would be prepared for these areas if necessary. | The Steamboat ACEC Evaluation is located in Appendix C.23. Management actions 7516 - 7529. Impact analysis is found in Section 4.21. |
| 836.09 - Steamboat Mountain ACEC | #13899-23 | Of the 16 new or expanded ACECs included in the preferred alternative, 12 are designated in part because of their significance to Tribal Nations. Of particular note, two ACEC nominations for the Rock Springs Field Office - one for the Boar's Tusk (included in the Greater Sand Dunes ACEC) and another for Indian Gap Trail (incorporated into the Steamboat Mountain ACEC) - were proposed by Tribal Members and deserve extra attention when determining if and how these are to be carried forward into the final resource management plan. As tools designed to protect values within the entirety of a landform, ecosystem, or landscape, ACECs have the potential to serve as effective frameworks for implementing Tribal co-stewardship, utilizing special management to holistically protect Tribal Cultural Sites therein. | Consultation with Native American Tribes is described in section 5.1.3 |
| 836.09 - Steamboat Mountain ACEC | #13923-2 | The Jack Morrow Hills CAP established a process for implementation, monitoring and evaluation of the plan's management in Appendix 2 (JMH CAP, A2-1, 2006). Baseline and indicator data were to be collected for monitoring and mitigation measures were to have been developed for plan decisions and management actions that could be evaluated to determine if objectives were being met. Sportsmen request that the BLM review whether these data were collected, cataloged, reviewed, and evaluated. If they were not completed and/or if they need additional evaluation and review, the BLM needs to make this a priority. The Final Rock Springs RMP should incorporate these processes with the findings of the baseline and indicator data as well. | See Section 1.4 Planning criteria and the Analysis of Management Situation (AMS). |
| 836.09 - Steamboat Mountain ACEC | #13923-3 | The Jack Morrow Hills area has high populations of feral horses. These feral horses need to be managed with population objective control. They are extremely territorial and part of that behavior includes competing for food among ungulates and grazers. Sportsmen recommend that the BLM reduce the number of feral horses to the standard population objectives. | Wild horse management for HMAs relating to the checkerboard, including the Great Divide Basin was completed in a separate RMP Amendment (see Section 1.4) and the 2023 Record of Decision. |
| 836.09 - Steamboat Mountain ACEC | #13923-17 | Steamboat Mountain is the highest point in Wyoming's Red Desert and offers crucial habitat for various species, including a rare desert elk herd. For this area, sportsmen support a hybrid of Alternative A (MA# 7516) and Alternative B, expanding the ACEC to the Red Desert Watershed Management Area. | The Steamboat Mountain ACEC Evaluation is located in Appendix C.23. The area met R&I criteria, see Appendix C. Alternative development including cooperating agency participation is described in 2.2.3. |
| 836.09 - Steamboat Mountain ACEC | #13925-37 | RSGA objects to the expansion of Steamboat Mountain ACEC from 43,270 acres to 282,330 acres on the basis of particular sites that cannot be blanketed under a single designation. These areas are better protected under existing law and regulation. The BLM must involve local governments, landowners, and permittees when determining whether special status plant species are present in an area. It should also be noted that Sage- Grouse habitat, whether priority or general, largely overlaps crucial habitat for wintering mule deer and these areas are therefore already protected. Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without an ACEC designation. | The Steamboat Mountain ACEC Evaluation is located in Appendix C.23. The area met R&I criteria, see Appendix C. Alternative development including cooperating agency participation is described in 2.2.3. Greater Sage Grouse management is being evaluated under separate RMP Amendment (See Section 1.4) |
| 836.10 - White Mountain | #13210-116 | 7530 Alternative B Retain the ACEC designation (20 acres, Table 2-12, Appendix V, and Map 2-30). Alternative B is preferred because it protects the rock art found at this site. | Management actions for the White Mountain Petroglyphs ACEC are described in MA# 7530 - 7537. |

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| Petroglyphs ACEC | | | |
| 836.10 - White Mountain Petroglyphs ACEC | #13784-43 | MA#7532, Alt. B: "Designate the ACEC an exclusion areas for: 1) surface disturbing activities that could adversely affect the resource values in the area..." Comment: Where livestock grazing overlaps the ACEC, this Alternative would prohibit livestock grazing permittees from implementing new range improvement projects such as water developments. The broad interpretation of surface disturbing activities is likely to cause significant negative impacts to the livestock grazing industry. | Impacts are described in Section 4.16 for all four alternatives for this White Mountain ACEC. |
| 836.10 - White Mountain Petroglyphs ACEC | #13878-4 | Another example at this site is the ability of the public to easily go up to the petroglyphs and touch them. I understand that the preservation standard for such sites is (quoted from a National Park Service website): "Preserve petroglyphs by not touching them in any way. Even a small amount of the oils from our hands can darken petroglyphs making them impossible to see." Here's an example of how the state of Wyoming has protected a large wall of petroglyphs at their Medicine Lodge Archeological Site. Notice the fencing so folks can't touch the rock art, but still have good access to viewing. The BLM needs to strengthen its wording in the ?nal RMP and also strengthen its actions. | Development of a petroglyphs protection plan would be an implementation level action and is outside the scope of this RMP planning effort. |
| 836.10 - White Mountain Petroglyphs ACEC | #13925-38 | White Mountain BLM cannot show the need for ACEC designation and this should be dropped. notes that this area has been expanded without documentation from the 20 acres identified in the 1997 Green River RMP. RSGA is unaware of additional petroglyph discoveries or other reasons for such an expansion. | The White Mountain Petroglyphs ACEC Evaluation is located in Appendix C.24. |
| 836.11 - South Wind River ACEC | #9793-7 | Explain how offsite mitigation will be used and where. Pages 2-209 South Wind River ACEC, 2210 East Sand Dunes ACEC, p 2-211 Big Game Migration Corridor, all mention "Manage a separate offsite mitigation area for biological impacts from energy development." Yet the Preferred Alternative will make these areas unavailable for leasing or energy development. Explain. Where will this offsite mitigation area be located? Is it within the RSFO? Page 4-73 states: "Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation," from both the South Wind River ACEC as well as the Big Game Migration Corridors ACEC under Alternative B. Yet referring to the South Wind River ACES on p4-103 through p4-104 states "Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation." These are different species than identified in the earlier pages. Why the inconsistency, and what is the specific plan for offsite mitigation? The claim that this off-site mitigation could result in benefits to swift fox is a bit concerning, since the swift fox is a species not known to occur in the RSFO. Please explain how offsite mitigation will work, and why this provision is specifically added to these three ACECs. | The specifics of offsite mitigation are out of scope for this RMP planning effort. This action would be an implementation level activity.<br>Page 3-8 identifies the swift fox as present within the planning area. |
| 836.11 - South Wind River ACEC | #13210-114 | 7452 Alternative B Manage to protect and improve the dunal ponds for bird, amphibian, and mammal habitat. These pools are one of the most ecologically rare features and important for big game. | The South Wind River ACEC Evaluation is located in Appendix C.17. |
| 836.11 - South Wind River ACEC | #13925-32 | The management objective emphasis for The Wind River Front "is for scenic, watershed, and wildlife values; recreation use; riparian and vegetation resources..." Similarly, the 1997 Green River RMP placed "management emphasis on enhancing recreation opportunities and to focus management on areas with high recreation values or areas where there are conflicts between recreation and other uses." Thus, it is unclear what benefit the ACEC designation will provide the trail and wild and scenic designations when this area is already managed as a SRMA for these objectives. | The South Wind River ACEC Evaluation is located in Appendix C.17. |
| 836.11 - South Wind River ACEC | #13925-33 | The Green River RMP provides that "[t]he 500 acres associated with the Arabis pusilla portion of the Special Status Plants ACEC, is closed to ORV use. In the remainder of the unit, off road vehicle (ORV) use is limited to designated roads and trails." Thus, under existing management, only 500 acres is identified as needing special status plant protection. The 2012 ACEC Proposal Evaluation Form fails to document the basis for additional land. | MA# 7509 identifies rationale for increasing acreage for this proposed ACEC. |
| 836.12 - East Sand Dunes—Red Lake ACEC | #9793-7 | Explain how offsite mitigation will be used and where. Pages 2-209 South Wind River ACEC, 2210 East Sand Dunes ACEC, p 2-211 Big Game Migration Corridor, all mention "Manage a separate offsite mitigation area for biological impacts from energy development." Yet the Preferred Alternative will make these areas unavailable for leasing or energy development. Explain. Where will this offsite mitigation area be located? Is it within the RSFO? Page 4-73 states: "Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation," from both the South Wind River ACEC as well as the Big Game Migration Corridors ACEC under Alternative B. Yet referring to the South Wind River ACES on p4-103 through p4-104 states "Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation." These are different species than identified in the earlier pages. Why the inconsistency, and what is the specific plan for offsite mitigation? The claim that this off-site mitigation could | The specifics of offsite mitigation are out of scope for this RMP planning effort. This action would be an implementation level activity.<br>Page 3-8 identifies the swift fox as present within the planning area. |

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| | | result in benefits to swift fox is a bit concerning, since the swift fox is a species not known to occur in the RSFO. Please explain how offsite mitigation will work, and why this provision is specifically added to these three ACECs. | |
| 836.12 - East Sand Dunes—Red Lake ACEC | #13925-39 | It is unclear how the DEIS can recommend an ACEC when the basic criteria for such a designation are admittedly absent. Elk and Antelope habitat are locally significant resources that can be protected and appropriately managed without expansive ACEC. The BLM does not explain how WGFD management are insufficient. The Evaluation Form admits that these dunes are only a portion of the larger system. Indeed, a very brief search shows that there are similar cold dune systems in several western states. Thus, the BLM must, and has not, disclosed why these dunes are regionally or nationally significant. Nor has the BLM identified the threat that requires some additional protection. These are fundamental failures and must be addressed. The area, while interesting, does not rise to the level of significance to satisfy a national priority. BLM admission suggests no basis for ACEC. | The East Sand Dunes ACEC Evaluation is located in Appendix C.25. |
| 836.13 - Big Game Migration Corridor ACEC | #539-2 | his protocol would actually be detrimental to wildlife (ironic because it is titled "big game migration corridor") and according to the BLM's own science in the DEIS, rangeland improvements help the local wildlife.22 LSGA would encourage the BLM to specifically allow grazing and rangeland improvements under these restrictions by listing them as an exception to these rules in the plan. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. Management is depicted by MA# 7555 - 7562. |
| 836.13 - Big Game Migration Corridor ACEC | #9793-2 | The EIS should explain how BLM has worked to harmonize this plan with Wyoming Executive Order 2020-1 which sets out how designated migration corridors are to be managed, and cite the "best available science" the BLM used in developing planning alternatives for this resource. | See Section 5.1 about consultation & coordination. Section 5.1.2 for a list of cooperating agencies that participated in development of he DEIS. See Table 5-1 for how those agencies coordinated and their responsibilities for developing the DEIS. |
| 836.13 - Big Game Migration Corridor ACEC | #9793-7 | Explain how offsite mitigation will be used and where. Pages 2-209 South Wind River ACEC, 2210 East Sand Dunes ACEC, p 2-211 Big Game Migration Corridor, all mention "Manage a separate offsite mitigation area for biological impacts from energy development." Yet the Preferred Alternative will make these areas unavailable for leasing or energy development. Explain. Where will this offsite mitigation area be located? Is it within the RSFO? Page 4-73 states: "Managing lands as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Wildlife such as elk, prairie dogs, and northern harrier could benefit from the low, early seral areas of vegetation," from both the South Wind River ACEC as well as the Big Game Migration Corridors ACEC under Alternative B. Yet referring to the South Wind River ACES on p4-103 through p4-104 states "Managing land as a separate offsite mitigation area could provide new seral stages of vegetation as new habitat regenerates. Special status wildlife such as mountain plover, white-tailed prairie dogs, and swift fox could benefit from the low, early seral areas of vegetation." These are different species than identified in the earlier pages. Why the inconsistency, and what is the specific plan for offsite mitigation? The claim that this off-site mitigation could result in benefits to swift fox is a bit concerning, since the swift fox is a species not known to occur in the RSFO. Please explain how offsite mitigation will work, and why this provision is specifically added to these three ACECs. | Offsite mitigation would be an implementation level activity and is outside the scope of this RMP planning document. |
| 836.13 - Big Game Migration Corridor ACEC | #13210-3 | 3. The Task Force supports Wyoming's collaborative efforts to conserve and maintain permeability of big game migration corridors. The BLM recognition of, support for, and management of migration corridors should be based on the management prescriptions within Wyoming's 2020-2 executive order and coordinate with the State of Wyoming's wildlife agency (the Wyoming Game and Fish Department). Adaptive management shall be utilized to solicit and include current science for these vital habitats. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. |
| 836.13 - Big Game Migration Corridor ACEC | #13244-1 | The Red Desert to Hoback migration corridor spans 150 miles and crosses private land, state trust land, United States National Forest land, and public land managed by the BLM. This migration corridor is the longest known mule deer migration corridor in the United States and is traveled by approximately 5,000 deer biannually. Alternative B would designate a new ACEC called the Big Game Migration Corridor ACEC. This ACEC would contain significant portions of the Red Desert to Hoback migration corridor. The Committee heard testimony from Wyoming's Game and Fish Department at our meeting on October 6, 2023 that Alternative B's inclusion of the Red Desert to Hoback migration corridor within the ACEC would be detrimental to the Wyoming Game and Fish Department's management of wildlife populations within the migration corridor. The Committee stands by the hard work the Wyoming Game and Fish Department has put into migration corridors. The Committee is committed to conserving these vital migration corridors to help maintain wildlife populations. The Committee believes that designating migration corridors within ACEC is not in the best interest of the state or the wildlife. The Committee believes that Alternative D, which does not include migration corridors in ACEC is the better approach. In addition, Alternative B would impose major restrictions along migration corridors. For example, Alternative B would "prohibit surface disturbing activities within ½ mile of big game migration corridors to avoid construction of a current or future identified big game corridors." In contrast, Alternative D would "allow fluid mineral surface occupancy and use within a Wyoming Game and Fish Department designated big game migration corridor if the fluid mineral operator and the BLM arrive at an acceptable conservation plan for avoidance, minimization, rectification and / or restoration within the migration corridor." | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. |
| 836.13 - Big Game | #13515-3 | RMEF appreciates coordination with the Wyoming Game & Fish Department (WGFD) and others to identify areas in need of special consideration, including big game migration corridors. Attention to these critical areas shows BLM's continued commitment to conserving these important corridors. However, RMEF does express concern about the perception of a federally designated migration corridor protection. Prior to finalizing the Big | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. |

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| Migration Corridor ACEC | | Game Migration ACEC, additional conversations within the conservation community are needed to fully assess the larger impacts of this federal designation in relation to management of a state trust species. | |
| 836.13 - Big Game Migration Corridor ACEC | #13751-179 | MA #7555#SD-40, SD-41, SR-01#No similar action Industry Position: Not applicable#Designate the Big Game Migration Corridors as an ACEC (226,335 acres, Table 2-12, Appendix V, and Map 2-30). Industry Position: Not Acceptable Reason: Big game winter range and similar area have been appropriately managed according to season restrictions. Big game migration corridors should be managed in the same fashion without new ACEC designations. The science and corridors are only now being evaluated by WY G&F; premature action by BLM is not warranted at this time. Recommend BLM refer the WY Governor's Executive Order for actions.#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-180 | MA #7556#SD-40, SD-41, SR-01#No similar action Industry Position: Not applicable#Prohibit surface disturbing activities or facilities within the entire Big Game Migration Corridor ACEC. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-181 | MA #7557#SD-40, SD-41, SR-01#No similar action Industry Position: Not applicable#Designate the area as VRM Class II objectives. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Appendix V Industry Position: Acceptable#Same as Alternative C Appendix V Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-182 | MA #7558#SD-40, SD-41, SR-01#No similar action Industry Position: Not applicable#Designate the ACEC as an exclusion area for right-of-way. Close the area to mineral material sales (Table 2-8, Appendix V; Maps 2-14 and 2-30). Pursue a withdrawal from entry under land laws and mineral location. Close the area to mineral leasing. Existing mineral leases would not be offered for lease once they expire. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-183 | MA #7559#SD-40, SD-41, SR-01#No similar action Industry Position: Not applicable#Manage necessary life state wildlife habitats and sensitive species habitats for no-net-loss or habitat and to retain habitat function by applying NSO restrictions within the ACEC. Grant no exceptions unless they benefit resource values. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-184 | MA #7560#SD-40, SD 41, SR-01#No similar action Industry Position: Not applicable#Manage vegetative resources in the area for the benefit of watershed and wildlife, in accordance with management objectives of those values. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-185 | MA #7561#SD-40, SD 41, SR-01#No similar action Industry Position: Not applicable#Limit vehicle use to designated roads and trails, subject to seasonal restrictions. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13751-186 | MA #7562#SD-40, SD 41, SR-01#No similar action Industry Position: Not applicable#Manage a separate offsite mitigation area for biological impacts from energy development. Industry Position: Not Acceptable Reason: See MA#7555#No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable#Same as Alternative C Industry Position: Acceptable#Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13787-97 | MA #7555 SD-40, SD-41, SR-01 No similar action Industry Position: Not applicable Designate the Big Game Migration Corridors as an ACEC (226,335 acres, Table 2-12, Appendix V, and Map 2-30). Industry Position: Not acceptable Reason: Big game winter range and similar area have been appropriately managed according to season restrictions. Big game migration corridors should be managed in the same fashion without new ACEC designations. The science and corridors are only now being evaluated by WY G&F; premature action by BLM is not warranted at this time. Recommend BLM refer the WY Governor's Executive Order for actions. No similar action, the Big Game Migration Corridors would not be designated as an ACEC. Industry Position: Acceptable Same as Alternative C Industry Position: Acceptable Alternatives A, C or D are acceptable. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13845-3 | MA-7556: Prohibit surface disturbing activities or facilities within the entire Big Game Migration Corridor ACEC should be revised to prohibit surface disturbing activities or facilities within the Bottleneck, Stopover, and High-use habitats of the migration corridor. Limit surface disturbance with CSU and TLS stipulations to 3% in Medium and Low-Use habitats and avoid seasonal activity during migrations. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |

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| 836.13 - Big Game Migration Corridor ACEC | #13845-4 | MA-7558: Designate the ACEC as an exclusion area for right-of-way. Close the area to mineral material sales. Pursue a withdrawal from entry under land laws and mineral location. Close the area to mineral leasing. Existing mineral leases would not be offered for lease once they expire. * Revise to: For Bottleneck, Stopover, and High-use habitats: ROW exclusion area; close the area to mineral material sales; pursue a withdrawal from entry under land laws and mineral location; close the area to mineral leasing; existing mineral leases would not be offered for lease once they expire. For Medium and Low-Use habitats: ROW avoidance; open to mineral material sales and leasing with 3% disturbance cap. Grant no exceptions unless they benefit resource values. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13845-5 | MA-7561: Limit vehicle use to designated roads and trails, subject to seasonal restrictions. * Revise to: Travel Management Plans should be prioritized within migration corridors. Limit vehicle use to designated roads and trails, subject to seasonal restrictions. Designate areas as limited or closed to motorized travel. No new designated routes should be authorized in bottlenecks, stopovers, or high-use. Unauthorized routes should be closed and rehabilitated as soon as practicable. Limit or reduce the density of routes within migration corridors to maintain corridor functionality. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13845-6 | Additionally, as part of the stated intention of Alternative B to conserve the Big Game Migration Corridor, we request the following MAs be added to the ACEC: * Lands and Realty: Identify lands for acquisition through exchange and/or purchase prioritizing bottlenecks, stopovers, and high-use areas. No parcels within migration habitat should be identified for disposal unless it would benefit the corridor functionality. * Recreation: Manage for undeveloped recreation. Do not develop new recreation infrastructure that is surface disturbing, including campgrounds, trails, trailheads in bottleneck, stopover, and high-use habitats. Consider relocating existing sites if conflicts with migration functionality. * Livestock Grazing: BLM shall manage grazing to facilitate ecological conditions and habitat services crucial to migratory big game species. Remove or modify fences for allotment management to improve migration functionality. If new fences are necessary, build to reduce impacts to migrations. Design water developments to benefit wildlife and avoid those that will result in forage loss and disease transmission. * Wild Horses: Prioritize wild/feral horse gatherings in areas that overlap with migration corridors to achieve Appropriate wild/feral horse Management Levels. Time the gathers to avoid big game migration periods. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13880-6 | The first of these is wildlife management and migration corridors. The management of wildlife, with limited exceptions, lies solely with the State of Wyoming. The Big Game Migration Corridor ACEC thwarts the State's ability to implement the Mule Deer and Antelope Migration Corridor Protection Executive Order 2020-1 (MCEO) in conflict with the U.S. Department of Interior's Secretarial Order 3362 and Instruction Memorandum 2023-005. The State of Wyoming manages and designates big game migration corridors through the MCEO through informed contemporary research, flexibility for conditions on the ground, and utilization of a publicly informed process. The Rock Springs draft RMP includes restrictions not based on any given science, or uses studies that are woefully out of date. Because the federal lands in the planning area are intermixed with state and private lands, any federal decisions stemming from this RMP could have lasting and damning impacts to the State's ability to manage its wildlife and maintain healthy wildlife populations. Any special designation regarding migration or connectivity should follow the designations determined by the MCEO, not the other way around. The Wyoming Game and Fish Department stands ready to work in close partnership with the BLM and I request that close attention be paid to their comments and their collaborative work from throughout the cooperating agency process. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-24 | The BLM should ensure adequate protections for Big Game Migration Corridors We support the Big Game Migration Corridor ACEC for the Red Desert to Hoback mule deer migration corridor (a portion of the State of Wyoming's designated Sublette Mule Deer Herd Migration Corridor). We agree with BLM's ACEC evaluation that this remarkable migration corridor meets the relevance and importance criteria for an ACEC and requires the special management attention accorded to a designated ACEC. Federal and state policies, science on migration, and decisions on the ground all support the need to conserve this corridor. The importance of the Red Desert to Hoback mule deer migration corridor cannot be overemphasized. This is the longest mule deer migration on record, with deer traveling an average one-way distance of 150 miles. Research has shown that migratory herds show greater population abundance over non-migratory herds.81 This corridor enables the movement of 4,000 to 5,000 mule deer from their summer ranges around Jackson Hole to winter range in the Red Desert. While not every ungulate migration corridor needs to be designated as an ACEC, the Red Desert to Hoback is clearly unique and should be formally recognized. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-28 | The first management objective for the Big Game Migration Corridor ACEC should be: "Ensure connectivity and unimpeded movement of migratory animals during spring and fall to forage at optimal times and places as needed and allow for avoidance of harsh environmental factors between winter and summer ranges." | SD-44 prevents fragmentation of habitats. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-29 | SD-40: Provide protection and enhancement of the recreation opportunities, activities, and setting of the area. ? Strike SD-40 from the list of goals for the Big Game Migration Corridor ACEC. ? Justification: SD-40 does not contribute to the protection of the resource-mule deer migratory habitats-that this ACEC manages for. | SD-40 defines overall goals for the ACEC |

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| 836.13 - Big Game Migration Corridor ACEC | #13899-30 | MA-7556: Prohibit surface disturbing activities or facilities within the entire Big Game Migration Corridor ACEC. ? Revise to: Prohibit surface disturbing activities or facilities within the Bottleneck, Stopover, and High-use habitats of the ACEC (including closures to oil and gas leasing, solid mineral leasing, pursue a locatable mineral withdrawal, and exclude rights-of-way). | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-31 | Limit oil and gas related surface disturbance at a 3% density disturbance cap with Controlled Surface Use and Timing Limitation Stipulations in Medium and Low-Use habitats and avoid activity seasonal during migrations. ? Justification: Research has shown that mule deer have a strong fidelity to these learned migration corridors from generation to generation that overrides the animal's potential to strike out and learn new routes93. Mule deer, unlike other large herbivores, appear to have little or no adaptability as to whether or where they migrate. In Wyoming, Sawyer et al. 2019 found that resident deer remained residents, and migrant deer remained migrants, regardless of age, reproductive status or number of years monitored94. They also found that migratory individuals showed strong fidelity (>80%) to their migration routes across seasons and year after year. Finally, the researchers reported the first direct evidence that a mammal's choice of migration route can influence its probability of survival and found that individual deer migrating outside of their traditional routes had 30% lower survival than individuals migrating along their traditional routes. Research has also shown deer mediate exposure to development by altering movements - both rates and timing/duration - rather than changing the routes they traverse. Wyckoff et al. 2018 concluded that mule deer in Wyoming increase their rate of movement, reduce time in stopovers, and shift stopovers in response to increasing development along migration routes, diminishing the benefits of migratory foraging95. A 14-year study on a mule deer herd south of Rawlins found the herd's ability to track springtime green-up forage -which supports antler growth, nursing of offspring and abundance - declined by 39% when energy development occurred in its migration corridor96. Clearly, it is far more reasonable to conserve animals' preferred habitat rather than expecting them to successfully navigate around obstacles. Use of migratory habitat by mule deer, excluding stopover areas, has been shown to decline as surface disturbance from energy development increases, with sharp declines observed when development crosses a 3% threshold97. Researchers cautioned against applying these findings to stopover habitats, which are disproportionately important for tracking vegetation green-up and characterized by low human disturbance. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-32 | MA-7558: Designate the ACEC as an exclusion area for right-of-way. Close the area to mineral material sales. Pursue a withdrawal from entry under land laws and mineral location. Close the area to mineral leasing. Existing mineral leases would not be offered for lease once they expire. ? Revise to: For Bottleneck, Stopover, and High-use habitats: exclusion area for right-of- way; close the area to mineral material sales; pursue a withdrawal from entry under land laws and mineral location; close the area to mineral leasing; existing mineral leases would not be offered for lease once they expire. For Medium and Low-Use habitats: avoidance for right-of-way; open to mineral material sales and limit surface disturbances from oil and gas with 3% density disturbance cap. Grant no exceptions unless they benefit resource values. ? Justification: See justification for MA 7556, above. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-33 | MA-7561: Limit vehicle use to designated roads and trails, subject to seasonal restrictions. ? Revise to: Travel Management Plans should be prioritized within migration corridors. Limit vehicle use to designated roads and trails, subject to seasonal restrictions. Designate areas as limited or closed to motorized travel. No new designated routes should be authorized in bottlenecks, stopovers, or high-use. Unauthorized routes should be closed and rehabilitated as soon as practicable. Limit or reduce the density of routes within migration corridors to maintain corridor functionality. ? Justification: While most migration research is focused on energy development, the same studies cited above can apply when evaluating surface disturbance of roads. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-34 | MA-7562: Manage a separate offsite mitigation area for biological impacts from energy development. ? Revision is not necessary but important to note that there is zero evidence to suggest we can mitigate impacts to migration corridors once they are impacted from development. Given that mule deer migrations generally occur along traditional routes that are learned and passed on from mother to young, it may be difficult to restore migratory landscapes by removing barriers once migratory subpopulations have dwindled98. | Section 4.7.3 describes how MA#7562 would benefit wildlife habitat. |
| 836.13 - Big Game Migration Corridor ACEC | #13899-35 | Additionally, we request these Management Actions be added to the Big Game Migration Corridor ACEC: ? Lands and Realty: Identify lands for acquisition through exchange and/or purchase prioritizing bottlenecks, stopovers, and high-use areas. No parcels within migration habitat should be identified for disposal unless it would benefit corridor functionality. ? Recreation: Manage for undeveloped recreation. Do not develop new recreation infrastructure that is surface disturbing, including campgrounds, trails, trailheads in Bottleneck, Stopover, and High-use habitats. Consider relocating existing sites in the case of conflicts with migration functionality. ? Livestock Grazing: BLM shall manage grazing to facilitate ecological conditions and habitat services crucial to migratory big game species. Remove or modify fences for allotment management to improve migration functionality. If new fences are necessary, build to reduce impacts to migrations. Design water developments to benefit wildlife and avoid those that will result in forage loss and disease transmission. ? Wild Horses: Prioritize wild/feral horse gatherings in areas that overlap with migration corridors to achieve Appropriate wild/feral horse Management Levels. Time wild horse gathers to avoid big game migration periods. | Lands & Realty: Appendix K identifies criteria for acquiring and disposing of lands. Lands identified for Disposal and Acquisition are found in Table K-1.<br>Recreation: Goals LR-10, 11, 12, 13 support consideration of other resources. See MA#6504 Alt B for protection of other resources.<br>Livestock Grazing: See Goal LR-09. MA#6400-6403, 6406, 6410. MA#6416 addresses range improvements.<br>Wild Horses: See Wild Horse Amendment ROD. |

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| 836.13 - Big Game Migration Corridor ACEC | #13908-3 | The Department does not support the establishment of the Big Game Migration Corridor ACEC as it prevents the flexibility to implement the MCEO as intended and violates SO 3362 and IM 2023-005. The approach to migration corridor management provided in Alternative B will ultimately result in ineffective management of migrating big game. The Department recommends ensuring the future preferred alternative include language that acknowledges state-designated big game migration corridors, allows flexibility to properly manage animals using the corridors, and requires consultation and collaboration with the Department. | Section 2.2.3 identifies how Alternatives were developed in cooperation with other Federal, State and local agencies. |
| 836.13 - Big Game Migration Corridor ACEC | #13923-10 | Additionally, we request that BLM management of migration corridors should be based on the management prescriptions within EO 2020-1 and that the BLM coordinate with the WGFD. | Section 2.2.3 identifies how Alternatives were developed in cooperation with other Federal, State and local agencies. |
| 836.13 - Big Game Migration Corridor ACEC | #13925-40 | Significant migration corridors for big game habitat exist in nearly every state in the western U.S. The fact that this particular corridor also contains administrative designations for other wildlife (sage-grouse) actually works against the designation as an ACEC since PHMA and GHMA include prescriptions than the ACEC may include. And, therefore, the DEIS has not identified the need for designation. The SMA negates need for special management. ACEC should be rejected. The Evaluation Form has not identified the threat of which the ACEC would preclude. And, unless the ACEC designation would preclude that threat, then it is not required. As such, the BLM has failed to justify this ACEC on two accounts. ACEC fails on need for special management. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #13943-7 | The Sublette Mule Deer Migration Corridor should be recognized in the plan as a migration corridor and managed to maintain its conservation value. o Maintaining the functionality and permeability of this corridor is paramount for the health and longevity of the Sublette mule deer herd. Migration corridor functionality as defined in Executive Order 2020-1, Wyoming Mule Deer and Antelope Migration Corridor Protection (EO 2020-1) states, "Maintaining connectivity between summer and winter ranges to allow mule deer and antelope movements conducive to necessary foraging and rest during migration, based on best-available scientific data." o We ask the BLM to, at a minimum, support the management prescriptions outlined in EO 2020-1 and evaluate the need to include additional management to effectively conserve this corridor based on the best available science. | The DEIS analyzes the impacts of Special Designations in Section 4.21. MA#7555 through 7562 Identifies a Big Game Migration Corridor ACEC. The DEIS analyzes the impacts to wildlife in section 4.7. See Goal BR-20. MA#4421, Alt B addresses all migration corridors. MA#4424 addresses prohibits surface disturbing activities w/in big game migration corridors. |
| 836.13 - Big Game Migration Corridor ACEC | #13953-17 | The WCCA echoes the concern from the Governor's office that the Big Game Migration Corridor ACEC undermines the substantial leadership the State of Wyoming has taken in implementing the Mule Deer and Antelope Migration Corridor Protection Executive Order 2020- 1 (Executive Order). The Executive Order provides for community and local government buy-in and is based on extensive scientific research on the big game animals that are wholly managed by the State of Wyoming. While the BLM does manage habitat utilized by these ungulates, it should focus its efforts as a crucial partner in the state's process instead undermining and seriously derailing the work that is already being done in Wyoming. | Section 2.2.3 identifies how Alternatives were developed in cooperation with other Federal, State and local agencies. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.13 - Big Game Migration Corridor ACEC | #14022-14 | Creating a Big Game ACEC doesn't make economical sense. With the State of Wyoming managing the State's wildlife SCCD feels that BLM should deal with the ACEC process in a different planning effort. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 836.14 - Big Sandy Openings | #13925-34 | Water resources - The BLM's 2012 ACEC Evaluation Proposal states that this area "does not have more than locally significant qualities" yet it proceeds to recommend the area as an ACEC contrary to BLM rules and handbook. ESA protection negates lynx habitat as a basis for ACEC designation as there is no need for special management. Lynx, Elk, Mule Deer, Antelope, and Moose habitat are all locally significant resources that can be protected and appropriately managed without sweeping ACECs. It should also be noted that Sage- Grouse habitat, whether priority or general, largely overlaps crucial habitat for wintering mule deer and these areas are therefore already protected from pursuant to 2015 GrSG ARMPA. | The Big Game Migration Corridor ACEC Evaluation is located in Appendix C.26. A full range of alternatives, including whether or not to designate the ACEC and proposed management actions are included in MA 7555-7562. |
| 837 - Socioeconomic Resources– Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10225-1 | Sweetwater County and the City of Rock Springs subsidies make up a sizeable portion of our budget. We are dependent on these subsidies to provide many essential services to the aging and mobility challenged population as well as the youth of Sweetwater County. The services that Young at Heart provides are the following: Congregate meals for the community having served approximately 6,891 meals in 2022 This year to date we have recorded 10,836 meals. Home delivered meals totaling around 42,000 in 2022, and social entertainment totaling approximately 17,708 hours (pool, poker, card games, and dominoes). We offer In-Home Services which provides light housekeeping and small chores to more than 92 clients in the Rock Springs and Green River areas. Additionally, we provide In-Home Health services assisting more than 15 patients. And finally we have our Early Learning Center providing children with quality education which serves more than 100 families. Therefore reduction in any of these revenue streams would severely impact, if not totally eliminate some of all of these services. In fact, it could force the closure of the Center altogether. Historically and currently mineral extraction is a mainstay in our local economy. Monies from industrial impacts, mineral severance, sales taxes, etc. flow into the local government budgets to support essential services. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10225-2 | In addition the oil and gas industry provides income for not only local government but funding for schools. It provides 51% of all property taxes and 80% of all severance taxes. This industry also provides 58,980 jobs in Wyoming alone. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10324-10 | As a college student, I do not have a large disposable income, and with things like park passes and entry fees increasing on land that I recreate, that does provide me some stress. I think it is important that not only minority groups are represented in land changing plans, but also individuals who are unable to afford some of the universal experiences in the area. I think it would be beneficial to discuss how fees for trails, parking lots, and land use would be dispersed, and how they would be created with the mindset of use for the majority of people. Just last semester in my Federal Lands class we discussed how in order to visit Yellowstone in the winter, the fees and cost associated with it provides a barrier to the majority of people, and though Rock Springs isn't a National Park, it is still important to consider any fees that could be placed on recreational opportunities and how that may discourage those wanting to enjoy our state. | Fees for the National Park Service are outside the scope of this EIS. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10324-2 | With the threat of CWD becoming more present in the area, there is a threat to the wildlife in the area, and this should be addressed not only for the wildlife in the area but also for the community. Hunting is a large part of the economy, and as noted in the draft EIS, the total high value for hunting in the area was $7,306,388, which is notably higher than any other recreation consumer surplus value in 2016.5 When looking up things about Sweetwater County and Rock Springs, I found that many of the guides for the area brought up hunting as an activity that is popular in the area, and this is important as it is an activity that helps bring the community together, brings new people to the area, and brings in revenue both for the state but also for wildlife conservation through laws like the Pittman-Robertson Act. As CWD is a fatal disease that is easily transmissible, this puts entire herds of big game species at risk of dying out, which would severely impact the culture of the area and the economy. | Impacts from Chronic Wasting Disease are outside the scope of this RMP analysis. Economic impacts discussed in 4.22 and hunting is discussion in Section 4.17 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10452-2 | section 4.22.8 - Environmental Justice Impacts - the plan minimizes the devastating effect this plan with have in the surrounding communities. This alleged geographic proximity to populations were purportedly utilized to assert there is no impact to Uinta County for minority populations or populations in poverty. Such assertion, however, fails to recognize the impact that closure of surface access for pipelines, roadways, mineral exploration, recreational use and grazing has on the entire human habitat and economy in the region beyond the debilitating effect on its economy but, rather, day to day life of Wyoming citizens. Specifically, an example of impacts not considered from the limitation of further exploration and use of natural gas will inherently lead to limited availability of the resource for use. Limited supply of natural gas, with steady or, inevitably, increased demand will result in higher rates to end customers. The population that suffers the most from higher costs for basic needs, such as heat, electricity and water, are those populations that were identified for study~ those populations in poverty. Uinta County has one of the largest populations in poverty in the State of Wyoming now and this plan will lead to recession of the economy with greater need for government assistance for all basic human dignities and needs. | Uinta County is part of the socioeconomic analysis areas (See Appendix N). Economic impacts are provided in Chapter 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10468-5 | Specifically, an example of impacts not considered from the limitation of further exploration and use of natural gas will inherently lead to limited availability of the resource for use. Limited supply of natural gas, with steady or, inevitably, increased demand will result in higher rates to end customers. The population that suffers the most from higher costs for basic needs, such as heat, electricity and water, are those populations that were identified for study~ those populations in poverty. Uinta County has one of the largest populations in poverty in the State of Wyoming now and this plan will lead to recession of the economy with greater need for government assistance for all basic human dignities and needs. | Uinta County is part of the socioeconomic analysis areas (See Appendix N). Economic impacts are provided in Chapter 4.22. The complexity of global energy markets is outside the scope of this RMP. |
| 837 - Socioeconomic Resources– | #10517-3 | Similarly, the Plan and the selection of Alternative B appears to disregard the socioeconomic costs associated with the need for promoting energy security and stability for America. By removing nearly 2 million acres from potential energy development through the proffered selection of Alternative B, the Bureau is limiting America's | Section 4.22 discloses the predicted economic impact of the alternatives |

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| Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | flexibility to respond to rising energy prices and the ability to protect American consumers and businesses from depending on the vagaries of foreign producers and countries to meet our need for reliable and dispatchable energy. We also can't help but recognize how Alternative B stifles energy production as a whole, excluding or closing millions of acres more to other energy sources (including geothermal) than the other three alternatives do. This is another example of how we believe Alternative B misses the mark when it comes to managing public lands under principles of multiple use. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #10517-5 | While the Plan cites the Energy Policy and Conservation Act of 2000 (which, among other things, requires the creation of the Strategic Petroleum Reserve), it does not appear that the Plan accounts for America's energy security and the need for reliable, dispatchable energy in the selection of Alternative B. The United States is at a critical juncture in energy development. While the country is recklessly hurdling toward renewable energy sources, it does so without fully considering the costs that we will incur as a result of losing reliable and dispatchable electricity that will be needed to meet the demands of our residents and our industries. | Section 4.22 discloses the predicted economic impact of the alternatives. The complexity of global energy markets is outside the scope of this RMP. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #12574-1 | I am a Trona miner and the bread winner for my family. this proposal will impact my ability to provide for my family long term due to the limitations on new expansion for mining. my wife owns a small business in Rock springs and the majority of her clientele income is supported by oil, gas and mining. The snowball effect of eliminating jobs will be detrimental to my family and the community and region of Southwest Wyoming. It blatantly states in (4.22.5 Impacts of Alternative B) that alternative B is 52% - 56% less income for the region. Taking more than half the revenue from an already struggling community will devastate and create poverty across the region driving multi-generational family's out of the area. | Section 4.22 discloses the predicted economic impact of the alternatives including the ripple effect to those not directed employed in oil and gas, and mining. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13064-2 | Alternative B would greatly reduce mineral development and production in Wyoming. This reduction would decrease local and state revenue while, also harming the livelihoods of the local communities. The local communities depend on mineral development and production and Alternative B would be detrimental to these local communities and the economic well-being of individuals within those communities. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13064-8 | Most significantly, the total local and state revenues would decrease annually under Alternative B. For example, ad valorem taxes would decrease by 52.4%, severance taxes would decrease by 55.1%, and the state's share of federal mineral royalties would decrease by 52.7%.54 The total local and state revenues are "52% to 55% lower under Alternative B than Alternative A" and "all quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A."55 The reduction in revenues for oil and gas development is due to "the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production."56 The Committee is greatly concerned that Alternative B would have a detrimental effect on Wyoming's economy. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous | #13094-1 | He works in the gas and oil industry and closing 2.1 million acres to oil and gas in Wyoming would severely impact our family's wellbeing. I have countless other friends and family who work in the oil and gas, mining, and ranching industries who would face negative impacts as well. It doesn't just stop there either, these changes would force families to move and impact the jobs of teachers and our entire economy. I am a teacher and have many teachers in my family and this would lead to less funding for schools and school closures. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |

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| materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13132-1 | There are many beds or layers of Trona though out Sweetwater County and it is the largest natural deposit of Trona in the world. If there were new restrictions put on trona mines, that would mean the eventual shutdown of the trona mines due to decreased production. This would hurt many families in Uinta County, Lincoln County, and Sweetwater County specifically, but statewide as well. Our livelihood depends on the mining industry, and they cannot afford any more restrictions. This will not only have a lasting impact financially on my family, but the city economy, the state economy, and the country altogether. Trona is a great resource and is used in many things; such as baking soda, glass, and fertilizer. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13134-1 | Majority of our educational funds are in direct correlation with the Energy and Mineral Industries. Reducing the Wyoming State Gross Domestic Product by $1billion/year would be detrimental to our state, our educational system would not survive. Decreasing Oil and Gas development by 73% is astronomical. The surrounding Mines, Coal, Oil and Gas Industries are the backbone of our state and cannot be compromised any more than they have been. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13137-1 | If there were new restrictions put on trona leases, that would mean the eventual shutdown of the trona mines due to decreased production. This would hurt many families in Uinta, Lincoln, and Sweetwater Counties specifically, but statewide as well. Our livelihood depends on the mining industry, and they cannot afford any more restrictions. This will not only have a lasting impact financially on my family, but the city economy, the state economy, and the country altogether. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13210-10 | 10. Uphold the continued ability of local communities and visitors to use and enjoy the outstanding wildlife and ecological values of landscapes within the Rock Springs Field Office, by supporting healthy wildlife, aquatic, and plant communities through conservation of the intact ecosystems, landscapes, and water sources they rely on. | Wildlife and plant resources within the planning area are described in Chapter 3, with the impacts for all four proposed alternatives provided in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13210-17 | 17. Under the Act of Admission to the union, the Federal Government endowed the State of Wyoming with state trust lands for the purposes expressed therein including to support public schools and institutions. Wyoming has a Constitutional responsibility to generate revenue for its public school system and other institutions by encouraging productive uses on state trust lands. These lands are very often encompassed by federal and private lands and require access through those lands in order to be utilized. The BLM must respect this charge given to the state by its citizens and ensure that no actions taken within this RMP impede the state's ability to fund public education and other institutions. This is the highest form of the BLM's responsibility to defer to state policies. | Impacts to areas with private or state ownership are discussed in the cumulative impacts analysis section (Appendix T). Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13218-1 | I am concerned that Alternative B would have a detrimental effect on Wyoming's energy and mineral industries. Alternative B would substantially decrease the opportunity for oil and gas development, coal development, and other mineral development. Alternative B would close 2,122,282 acres to oil and gas development, 3,735,526 acres to coal development, 2,581,741 acres to mineral material sales and disposals, and 49,224 acres to trona leasing and development within the known sodium leasing area. The acres closed for oil and gas development is a 192% increase compared to Alternative A (the current management standard for the Rock Springs planning area); for coal development, a 433% increase compared to Alternative A; for mineral material sales and disposals, a 209% increase compared to Alternative A; and for trona leasing and development, a 101% increase compared to Alternative A. This is an extreme increase in the number of acres closed compared to Alternative A and this would have the greatest negative impact on solid mineral leasing and development, saleable mineral development, and trona development. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13241-1 | Alternative B would have a devasting overall economic impact on Wyoming. Under Alternative B, the estimated economic output is $12.6 billion dollars, the estimated total labor earnings are $2.3 billion dollars, and the estimated total local and state revenues from mineral production is $800 million dollars. This is an extreme decrease from the other alternatives. For example, under Alternative A, the estimated economic output is $29.9 billion dollars, the estimated total labor earnings are $5.4 billion dollars, and the estimated local and state revenues from mineral production is $2.3 billion dollars. The total economic output is 52.3% lower under Alternative B than Alternative A and the total labor earnings are 55.8% lower under Alternative B than Alternative A. In addition, the average annual jobs would also decrease as Alternative B would generate only 2,707 jobs compared to Alternative A generating 6,157 jobs. Most significantly, the total local and state revenues would decrease annually under Alternative B. For example, ad valorem taxes would decrease by 52.4%, severance taxes would decrease by 55.1%, and the state's share of federal mineral royalties would decrease by 52.7%. The total local and state revenues are "52% to 55% lower under Alternative B than Alternative A" and "all quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A." The reduction in revenues for oil and gas development is due to "the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production." I am totally concerned that Alternative B would have a detrimental effect on Wyoming's economy. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13287-15 | A study of the Mount Milligan Mine's impacts to local First Nations communities found: The influx of workers resulted in strains on existing health services, impacts to health services in relation to an increase in industrial accidents and illness, increased vulnerability for women and youth in the area, increased pressure on a pre-existing housing crisis, and increased traffic. Community Health and Safety in the Nak'al Bun/Stuart Lake Region During the Construction Phase of the Mount Milligan Mine (Shandro et al.) at 5. Crime (including sexual assaults) and prostitution also increased. Id. at 30 and 29. Similarly, a 2017 study of the impacts of resource-extraction worker camps on the First Nations of western Canada found increased vulnerability for women and youth, increased road safety problems, increased sex trade and sex trafficking, increased amounts of drugs and alcohol being brought into indigenous communities, and increased strain on health services. In northern British Columbia, increases in rates of sexually transmitted diseases have been linked to influxes of oil and gas workers. Likewise, reservations in the United States have experienced serious health and safety impacts during the Bakken oil boom. On the Fort Berthold Indian Reservation in North Dakota, the Bakken oil boom has coincided with large increases in sex trafficking (Shandro et al. 2014: 26-27) sexual assault, and domestic violence (Finn et al. 2017:2-3, NIWRC at 13-17). The Fort Peck Assiniboine Sioux Tribe has also experienced increases in crime and violence during the Bakken oil boom. NIWRC at 18-19. In addition, according to the Montana Board of Crime Control, the four Montana counties nearest the Bakken oil patch reported higher crime increases than their surrounding counties. Wyoming has a serious existing problem of missing and murdered indigenous women, as has been recognized formally by the state. In April 2019, Wyoming Governor Mark Gordon announced that he would convene a task force "to address ways to combat the high rates of murdered and missing American Indian women in Wyoming." The Governor's announcement featured pictures of Jocelyn Watt, a Northern Arapaho woman who had been found murdered in her home in Riverton. The oil and gas development entailed under the Rock Springs RMP entails temporary, non-local workforce would be so large that large man camps may be necessary. At its peak, the total Project workforce could exceed thousands. This means the Rock Springs RMP-authorized minerals development would result in a large influx of oil and gas workers from outside the local area. Despite the close proximity of the Wind River Indian Reservation, the DEIS does a poor job of acknowledging Eastern Shoshone and Northern Arapaho environmental justice communities on the Reservation, and disclosing impacts of the potential large influx of oil and gas workers from outside the local area. The DEIS does not consider the Project's potential impacts to Indigenous communities related to a wide range of issues identified by the sources cited in this section. | Section 4.22 addresses concerns related to boom aspects of oil and gas development and 5.1.3 identifies discussions with Tribal Nations |
| 837 - Socioeconomic Resources–Economics and Public | #13330-18 | The table on page 644 of Volume 2 states that with Alternative B "there would be fewer designated recreation sites and developed recreation areas, which could reduce the availability of facilities for use by the public." Sweetwater County Farm Bureau opposes this closure of recreation sites because closure to the public is also closure to ag producers' access. These actions would negatively impact our economy and local tourism. | Section 4.22 discloses the predicted economic impact of the alternatives |

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| Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13364-2 | the RMP's Quantitative Economics Impacts analysis as well as its Socioeconomic Impacts analysis do not address impact projections for the restriction of Minor Pipelines under Alt. B. There is little evidentiary basis for RMP's anecdotal finding that for "habitat and resource conservation stakeholders", "Alternative B [is] the most favorable of all the alternatives for their interests." No Stakeholders have provided a position on how, and to whom, natural gas service should be provided in the area or whether or not they are in favor of substantially increased costs for building infrastructure around, but not through, their public lands. It would be imprudent for the BLM to implement Alt. B without an extensive economic and socioeconomic impact analysis for natural gas lines (and other utility services, for that matter) as well as the collection of reliable data regarding Stakeholders' actual interests. | Rights-of-way management actions for all four alternatives can be found in actions 6000-6005, this would include linear rights-of-way for pipelines. Socioeconomic impacts for all four alternatives can be found in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13477-1 | Restrictive Land Use: The proposed ACECs and rights-of-way exclusion areas could severely hamper our ability to maintain and expand essential energy infrastructure, impacting service reliability and consumer costs. | Indirect impacts are disclosed in 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13477-2 | 3. Operational Challenges: The plan's restrictions could lead to higher operational costs and reduced service reliability, adversely impacting our consumers. | Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13477-3 | 1. Economic Implications: Restrictions on energy and industrial developments could lead to significant economic downturns, affecting local economies, job markets, and the broader community. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13477-4 | 3. Tourism Industry Impact: Reduced access to public lands could lead to a decline in tourism-related revenue, impacting the local economy. | Section 4.17 discussion changes in recreational tourism while Section 4.22 discusses related economic impacts under the various alternatives |

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| mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13477-5 | Impact on Energy Development: The plan restricts energy projects, including renewable energy projects, limiting our ability to strengthen our distribution and transmission power grids while hindering our ability to provide reliable, affordable, and clean energy sources and local economic growth in this sector. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13512-1 | This unique supply of natural soda ash, exclusively found in areas administered by the BLM's Rock Springs and Kemmerer Field Offices, is essential to the U.S. production of glass, electric vehicle ("EV") batteries, photovoltaic solar panels, and other prioritized domestic products. Without specific changes to the Draft RMP-especially those related to Rights-of-Way ("ROWs") and pre-existing Corridors-soda ash projects like Project West will be unable to proceed as planned. This is particularly impactful since our soda ash project will advance U.S. energy goals and the administration's priorities. | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13512-2 | Wyoming's natural soda ash, the largest source in the world, is the essential ingredient for many day-to-day items like glass, detergents, food products, and numerous household goods, along with products prioritized by both domestic and international markets, namely multiple types of EV batteries and photovoltaic solar panels. Soda ash is Wyoming's top export, and in 2022, soda ash production in Wyoming was 18,482,320 tons and employed 2,363 people.3 Even with existing production, it will take the development of several new projects like Project West to meet growing demand. | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13515-6 | For many hunter-conservationists, public lands provide the best opportunity to pursue their hunting heritage. These activities deliver economic benefits for local communities, as well as cultural and social benefits. We strongly encourage inclusion of hunting, fishing, trapping, and shooting sports as contributing to local economies and the well-being and quality of life of BLM land users. | Hunting is discussed in Section 4.17 and corresponding socioeconomic impacts in 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13519-1 | The BLM admits, projects, and acknowledges that its preferred management objective will result in the reduction of economic activity of $907 million dollars annually. An estimated 2,920 lost jobs that will equate to $211 million dollar loss to labor earnings per year in the described planning area. The viability of Sweetwater County simply cannot sustain the loss of nearly 3000 jobs. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic | #13527-4 | We believe that watchable wildlife, heritage tourism, and the economic benefits of unimpaired wild lands will prove to be more valuable and more sustainable than the alternatives that would expand OHV routes and development | Recreation is discussion in Section 4.17 and corresponding socioeconomic impacts in 4.22 |

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| Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | of minerals and fossil fuels. We favor preserving local natural resource-based economies and generations-old traditions in southwestern Wyoming. With careful planning and execution, these industries can remain an integral and essential part of evolving tourism-based economic development, and both sectors can flourish. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-100 | Appendix T. T.1.3. Socioeconomics. T-29 The RMP states, "None of the alternatives would impact coal and trona production in ways that significantly exacerbate or counter the larger forces acting on industries." However, Alternative B, and different components of Alternatives C and D would restrict areas that trona mines already have leases for to be closed to trona mining, which would significantly impact the facility's ability to mine on BLM lands in shallow trona beds and access private and state leases through existing shafts due to the checkerboard pattern of land ownership. Further, this analysis relies upon outdated sales models for coal to imply that trona will follow the same economic patterns. There is no factual or logical connection between either commodity. The BLM's actions will have an outsized impact on the industry in many ways which the agency has failed to analyze or disclose to the public. These analytical failures severely undermine the credibility and reliability of the agency's entire construct for managing the resources in the area under all the Alternatives. | Trona mining impacts under the alternatives are discussed in Chapter 4.11; The combination of coal/trona numbers in Chapter 4.22 economic impacts was done to hide proprietary values, the methodology differed as explained in Appendix N. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-54 | 3-31 The Socioeconomic Baseline Report was prepared in 2013, which is 10 years ago. The area has significantly changed since 2015 with the downturn of the oil and gas industry, and since the 2020 global pandemic and resulting economic downturn. A newer baseline report with current socioeconomic data should be generated and used. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-55 | 3-32 The socioeconomic study area uses the 2010 Census population and population density data. The 2020 Census data should be used, as the currently used data is 13 years old. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-77 | Appendix N. Footnote 1. N-3 The source for the definitions references the Minnesota IMPLAN group, which sold IMPLAN in 2013, so these definitions are not current and are over 10 years old. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | They were valid at the time of analysis. See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. |
| 837 - Socioeconomic Resources–Economics and Public Safety | #13542-78 | Appendix N. Timeframe of the Analyses. N-4 Due to the global pandemic and the economic downturn of 2020, this model that was re-run in 2019 is outdated and already "models" several years that have already passed since it is 2023. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |

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| (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-79 | Appendix N. Base Year Dollars and Discounting. N-4 The dollar figures in the economic analysis are in constant 2014 dollars. Is that the same baseline for IMPLAN currently? Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-80 | Appendix N. Base Year Dollars and Discounting. N-4 The base year for the economic analysis is 7 years ago (2016). Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-81 | Appendix N. Trona (Soda Ash) Introduction. N-10 The soda ash production values used in the analysis were from 2007 to 2014. Many of the operators have increased production over the last 9 years, and thus these numbers do not reflect the current impact of soda ash production nor are an accurate indication of future soda ash production, as assumed in this section for analysis. Please use more recent data in the environmental impact statement before implementation. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-82 | Appendix N. N.2.3. Trona (Soda Ash) Introduction. N-10 The soda ash price used in the analysis was from 2014 (of which sales prices have increased) and is projected in the analysis to be consistent during the duration of the study period (ending in 2031). Please use more recent data in this analysis before implementation. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13542-83 | Appendix N. N.2.3. Trona (Soda Ash) IMPLAN Model Modifications. N-11 Why did the BLM use Sector 33 and Sector 164 for soda ash? The current Sector to use in IMPLAN is Sector 31, which Ciner Wyoming LLC used during their Unit 8 Wyoming Department of Environmental Quality Industrial Siting Application for their Unit 8 expansion project. Since this whole section deals with trona, Sector 164 is not applicable. Please provide details as to why or correct if it is an error. Please revise and update the agency's analysis to include the correct data and disclose the same to the public. | The methodology in Appendix N was peer reviewed among economic specialist. The economic analysis is sufficient for the purpose of comparing alternatives. |

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| mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-84 | Appendix N. N.2.3. Trona (Soda Ash) IMPLAN Model Modifications. N-11 The year of the Wyoming State Inspector of Mines data and BLS data for employment that were used in the IMPLAN analysis is not cited in the analysis. Please disclose to the public. | 2014 was selected to be consistent with the other baseline values. Text has been updated. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-85 | Appendix N. N.2.3. Trona (Soda Ash) Production Impacts. N-11 Ciner Wyoming LLC used during their Unit 8 Wyoming Department of Environmental Quality Industrial Siting Application for their Unit 8 expansion project's IMPLAN model, the sectors for soda ash impacts included: Sector 507, Hotels, and motels, including casino hotels; Sector 56, Construction of other new nonresidential structures; Sector 31, Potash, soda, and borate mineral mining; Sector 406, Retail - Food and beverage stores. All of these would be impacted by soda ash mining in the area. Without including these sectors, the BLM is minimizing the impact that the soda ash industry including operations and construction projects has on the local economy. Please revise and update the agency's analysis to include the latest, correct data and disclose the same to the public. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The economic analysis is valid for the purposes of comparing impacts among alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-86 | Appendix N. N.2.5. Recreation. Table N-6 Source. N-16 The source of the recreation data is over 10 years old. Tere has been an increase in recreational activities since the global pandemic in 2020, which would not be accounted for in the analysis by using data from 2013. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-87 | Appendix N. N.2.5. Recreation Impacts. N-18 The analysis in IMPLAN is old and does not follow the current sectors available. For example, in the list on page N-18, Sector 400 is Retail - Food and Beverages, but this is currently Sector 406 in IMPLAN. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | They were valid at the time of analysis. See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-88 | Appendix O. O.4.3. Coal and Trona (Soda Ash) Production. O-10 The NAICS code for soda ash manufacturing (trona) is not 325180 as stated in the RMP, which is an input to the REMI model. The NAICS code is 212390. The model should be updated and rerun to include the proper industrial codes, then disclosed to the public for evaluation before being finalized. | Appendix O was conducted by a cooperator and its results not being used by BLM in its Section 4.22 results discussion |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-89 | Appendix O. O.6.1. Coal and Trona (Soda Ash) Production. O-24 This section refers to Sector 164, which is not the proper sector for soda ash manufacturing. Please revise and update the agency's analysis to include the latest, correct data and disclose the same to the public. | Appendix O was conducted by a cooperator and its results not being used by BLM in its Section 4.22 results discussion |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13542-90 | Appendix O. O.6.1. Coal and Trona (Soda Ash) Production. O-24 This section refers to 325180 for the NAICS code for soda ash manufacturing, which should actually be 212390. Please revise and update the agency's analysis to include the latest, correct data and disclose the same to the public. | Appendix O was conducted by a cooperator and its results not being used by BLM in its Section 4.22 results discussion |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13557-1 | For years the industries in Southwest Wyoming such as, agriculture, mining, and oil and gas, have worked hand in hand with the BLM in crafting a plan that allows for multiple use of public lands. The preferred plan of the BLM, Alternative B, goes against this approach with has been used for years. Alternative B allows too many constraints to be placed on the industries that not only support Southwest Wyoming, but the entire State. If this alternative were to be put in place, thousands of people in Wyoming from agriculture, oil and gas, and mining would be out of a job, not to mention the auxiliary businesses that service these industries. While I believe that conservation of certain areas is also important, all of this must be, and can be, balanced. The economy of Southwest Wyoming and the jobs of thousands of people cannot be decimated so most of the land can be conserved. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13564-5 | The data collected and used to calculate the economic impacts of this RMP ranges up to 15 years old and does not reflect the current economic environment of the area. Additionally, the agency's preferred choice does not reflect the community, as it eliminates the largest amount of industry. This comes at a time when the US is under unprecedented inflation rates that are affecting everyone across the country on all levels. It is vital that the BLM focuses on using data that is relevant to the current state of the community to adequately determine the over all impact of each Alternative. The implementation of Alternative B puts the economic state of the surrounding communities into disarray. Furthermore, this impacts the entire state in the long term, as tax dollars from extraction industries under the RMP are collected and distributed among the state with the highest percentage going to the counties. County and City taxes are also collected from tourists visiting the area for its resources and recreation. The loss of this income can impact community welfare. | Section 4.22 discloses the predicted economic impact of the altern. Additionally, the socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives including the ripple effects |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13585-24 | The BLM then states that impact on overall oil and gas development may not be as high as the large reduction in BLM-managed well counts would indicate because development may shift from the federal surface and mineral estates to non-federal surface and mineral estates. Id. at 4-259. However, this statement fails to recognize that development on private and state lands is unlikely to proceed, especially in the Checkerboard, where ROWs across federal lands are necessary for development to occur. In addition, closure of so many areas to development could also adversely impact the development of existing leases when the play or unit area is not fully leased and will never be fully leased due to Preferred Alternative B's proposed closures. | The underlying RFD captures impacts to non-federal development and Section 4.17 discusses indirect impacts. The economic modeling is designed to help compare among alternatives. |
| 837 - Socioeconomic Resources–Economics | #13585-25 | e. Economic Impact o(Designating Over 1.6 Million Acres as ACECs Preferred Alternative B proposes about 1.6 million acres of ACECs. DEIS at 4-230. Within the management actions for each associated proposed ACEC, Preferred Alternative B proposes to withdraw all lands within the ACEC from mineral location, close the majority of ACEC lands to fluid mineral leasing and solid leasable minerals, and identify almost all ACECs as right-of-way | Section 4.22 discloses the predicted economic impact of the alternatives |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | (ROW) exclusion areas. See id. at Append. V-1 - V-10, V-14 - V-24. The impact this will have on both non-renewable and renewable resource development is significant as little to no development would be allowed within over a third of the public lands and additional private lands within the checkerboard in the County due to ACEC designation alone. In addition, the impact to development will double as the BLM has proposed over 2.1 million acres for designation as Visual Resource Management ("VRM") Class II and 225,785 acres of VRM Class I under the Preferred Alternative B, which includes ACECs and expands out to an additional 500,000 plus acres. Id. at ES-3, Maps 2-18 and 2-29, Append. V-22; see also id. at 4-136, 4-223 (discussing impact ofVRM Class II designations on development). This will devastate Sweetwater County's economy and remove multiple use from the Rock Springs Field Office. The DEIS recognizes the following quantified economic impacts for Alternative B: * Total economic output attributable to BLM-administered land in the RSFO across all programs totals $827 million annually in 2016 in Alternative B. Earnings total $168 million annually. Employment totals 2,515 jobs annually. These values are approximately 56%, 52%, and 56% lower, respectively, than the comparable values for Alternative A. * Total quantified public revenues in 2016 range from approximately 52% to 55% lower under Alternative B than Alternative A. The state redistributes a small portion of total severance taxes and federal mineral royalties directly to the local communities where the revenues are generated.... * All quantified economic and public revenue indicators for oil and gas development and production are approximately 74% lower under Alternative B than Alternative A. This is due to the substantially lower number of wells drilled under Alternative B and corresponding reductions in oil and gas production as projected by the RFD scenario. Id. at 4-258 - 4-259 (emphasis added). | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13585-28 | The 74% anticipation of a reduction in oil and gas development, as indicated in Section 4.22.2.5 of the DEIS, will have detrimental effects on local economies and public services. Over 55% of Sweetwater County's valuation comes from natural gas, oil, and trona so the ramifications of a loss in valuation will affect a diverse spectrum of services county-wide. The BLM "Economic Impact Comparison Analysis" was cursory in nature and failed to take in account, inter alia, production ad-valorem taxes in their economic modeling. The BLM has failed to adequately consider or calculate the cost benefit analyses as they pertain to ACECs as well as other values/resources and special designations. Rather, the BLM limited their consideration to tax losses, while using outdated data and failing to consider other methods of obtaining cost-benefit analysis. The failure to consider data includes the fact that lease terms typically end in ten (10) years while the RMP process has gone beyond that time frame and thus, the data is beyond that term. There is further insufficient analysis of the impacts to the state and to renewable development as it relates to ACEC's (as well as other values, resources, and special designations). Rather than doing an in-depth cost benefit analysis, the BLM merely states at Section 4.22.5 of the Draft RMP "[h]owever, it is also possible that the low levels of oil and gas development under Alternative B could have negative community impacts. Many communities and residents in the planning area have experienced high rates of this development in the recent past, may expect such rates again in the future, and may have made plans or investments that depend on resumption of high rates of development. To the extent this is true for some of the communities and residents, the reduced rates of development under Alternative B could reduce their ability to achieve desired levels of community development and individual economic well being." | NEPA does not require a cost-benefit analysis |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13585-29 | Sweetwater County received $16,897,535.73 in oil and gas production ad valorem taxes in 2023. A 74% reduction would result in $12,204.176.44 less revenue, which will decrease revenue amounts down to $4,333,359.29. The biggest revenue hit will be to local school districts, which would decrease their revenue amount from $8,502,839.98 down to $2,946,684.32. The reduction in jobs and earnings will also impact schools through the loss of student enrollment and, as a result, reduction in funding from the School Foundation Program. What complicates the projection from below is that the estimates pertain to the County and not solely to Sweetwater #1 or specifically Sweetwater #2. In lieu of this, we examined the cost from the loss of students based on the average daily membership ("ADM"). Said differently, ADM generates how the funding is provided to Sweetwater #1 from the State. Specifically for Sweetwater #1, the funding for one ADM is estimated at $12,683.00. This amount is budgeted from the Board of Education Fiscal Update dated July 19, 2023. Therefore, a loss of 100 ADMs would be $1,268,300.00. A loss of200 ADMs would be $2,536,600.00. A loss of 250 ADMs would be $3,170,750.00. Using this projection, significant cuts to school funding would affect workforce reductions, capital improvements, building maintenance, extracurricular activities and programming, and staff salaries. | Chapter 4.22 discloses impact to public revenues under the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13585-30 | Furthermore, this could necessitate the closing of schools, particularly those in remote areas. In addition to school impacts, the Sweetwater County Public Works Department will also see impacts related to reduced revenues. When you exclude capital construction budgets, the Sweetwater County Public Works budget is the second largest budget within the Sweetwater County Government. The Public Works Department maintains thirteen county parks, 1,200 miles of county roads, and is responsible for maintaining and cleaning twelve county buildings, and employs approximately 52 full-time employees who work, live, and recreate within Sweetwater County.If the Rock Springs RMP Alternative B becomes a reality, Sweetwater County will see a loss in valuation that will affect all the facets of the Public Works Department. To highlight the magnitude of this loss it is important to understand that the Public Works Department's total budget is just over $12 million for FY2024. If the 74% reduction in ad valorem taxes becomes a reality that budget will be cut to approximately $3 million. Sweetwater County would only be able to | Section 4.22 discloses the economic impacts of alternatives and public services |

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| mine lands) (8000- 8012) | | fund 93% of our 2024 facility maintenance and custodial budget. This reduction will not even cover the FY2024 anticipated payroll of $5,469,994 let alone pay for the anticipated maintenance of the roads, parks, and buildings. This loss in valuation would be so severe that Sweetwater County would need to choose if they maintained 932 miles of roadway and/or performed routine maintenance and cleaning of the county buildings. All while not maintaining our county parks and vehicles (including the Sheriffs patrol and search and rescue) in safe working order. We wouldn't be able to maintain the full 1,200 miles of roadway because the total budget for Road and Bridge currently exceeds the RMP's estimated loss in budget by 12%. Ultimately these cuts would be so deep that the Public Works Department would be left with a skeleton crew of 13 employees to manage the public infrastructure that the citizens of Sweetwater County have come to rely on within the vast 10,500 square miles that we call home. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13585-31 | Furthermore, public safety will see impacts on both personnel and capital budgets with a projection of public revenue reductions. The Sheriffs Office comprises approximately 28% of the core county government budget. Thus, a 74% reduction in ad valorem and revenue would equate to a $3,653,807 reduction in the Sheriffs Office budget. At an average cost per sworn deputy of $134,407, we would be forced to attrition 15 sworn positions to meet this budget reduction. For perspective, we currently employ a total of 21 deputies on patrol and 28 deputies to staff the main operations at the detention center. Due to the number of duty stations and mandatory staffing minimums for accreditation, we would be able to reduce our sworn staff in the detention center by a total of four deputies, but only if we also closed our dedicated juvenile detention section of the facility. We are currently only 1 of 4 certified facilities in the state of Wyoming qualified to house juveniles. On the patrol/operations side of our organization, we would be forced to cut 11 sworn positions to meet this budget reduction. These staffing cuts would make it logistically impossible to provide 24-hour law enforcement services to the County and would force further cuts to services currently provided. Additionally, these cuts would create a frequently dangerous situation due to understaffing that would leave our patrol deputies alone to address and resolve calls-for-service that normally require a two-deputy response. Additionally, the Sheriffs Office capital budget for this fiscal year is $186,715, approximately 1.5% of their total budget. These figures do not account for fleet vehicles recently purchased via federal ARPA funds. Our sheriffs vehicles cost $72,000 apiece, with vehicle and up-fit purchase costs increasing year-to-year. On average, the Sheriffs require approximately five vehicles yearly to maintain the strategic rotation requirements of our fleet plan, at an approximate cost of $360,000 per year. If factored as their only capital line item, this accounts for 2.7% of their total budget. In a hypothetical 74% loss in ad valorem and revenue to the County, the Sheriffs Office would likely have to cut our vehicle purchase requests to one vehicle per year, representing a reduced capital budget of $93,600 per annum. These cuts would force the Sheriffs Office to extend the rotation/service times of their existing fleet, rendering many of the vehicles in their fleet unsafe to operate as emergency response vehicles, representing an undue danger to their employees, incurring added maintenance expenses, and creating added liability to the County. | Section 4.22 discloses the economic impacts of alternatives and public services |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13585-32 | In addition to the severe impacts to the energy industry and local services that support our local economy, Alternative B de-emphasizes recreation as stated in Section 4.22.5 of the DEIS RMP, "particularly developed recreation, relative to Alternative A. For instance, no SRMAs would be retained in Alternative B. Areas for OHV rallies, cross-country races, and other organized events would not be provided. Certain areas that would have recreation project plans developed under Alternative A would not have such plans under Alternative B. Certain areas that would be managed for recreation values under Alternative A would be managed for other values under Alternative B." DEIS at 4-260. Events such as the "Run the Red," which is dedicated to celebrating and conserving the Red Desert, would be in jeopardy ofreceiving approval for future races. These events provide important tourist dollars within the County and surrounding Counties that are spent in local hotels, restaurants, and other retail establishments. The BLM cursory "Economic Impact Comparison Analysis" economic modeling fails to take in to account recreation and revenues from tourism. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13585-35 | All of these negative effects would also be felt with by the existing communities within the Growth Management Area. The purpose of the Growth Management Area, which encompasses the areas surrounding the most populous areas in Sweetwater County consisting of checkerboard ownership, is to promote orderly growth. The ROW exclusion areas shown in Map 2-22 will restrict city growth by prohibiting infrastructure expansion of water, sewer, transmission lines, pipelines, and access roads within the most developable lands in Sweetwater County. Serious limitations on developable properties will constrain opportunities to address housing needs that support future industrial development projects. Again, the BLM cursory "Economic Impact Comparison Analysis" economic modeling fails to take into account these effects. | Indirect impacts are disclosed in 4.19 |
| 837 - Socioeconomic Resources–Economics | #13585-54 | Alternative BROW exclusion areas will also impact an economic diversification project in Sweetwater County. The County has been developing a large industrial complex south of the airport that will help to diversify the County's economy. The site requires access and development of infrastructure across federal lands that are currently proposed for ROW exclusion, including: Sections 22, 26, 28, 32, and 34 of Township 19 North, Range 108 West; | Indirect impacts are disclosed in 4.19; See special management designation section for actions driving the right-of-way exclusion proposals. |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | and Sections 2, 6, 8, 10, and 14 of Township 19 North, Range 108 West. The ROW exclusion will prohibit construction of this future industrial complex. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13590-3 | In addition to crippling new economic development, these management actions would also damage existing residential home values in certain areas. There are homeowners in the planning area who must cross BLM land to a reach a county road. Many of these homeowners have obtained state-law based rights to cross private and state lands, but may not have a recorded right of way granted from the BLM. For those homeowners, Alternative B would effectively landlock them, thus diminishing the value of their homes. | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13618-1 | 1. Economic Implications: Restrictions on energy and industrial developments could lead to significant economic downturns, affecting local economies, job markets, and the broader community. | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13618-2 | Tourism Industry Impact: Reduced access to public lands could lead to a decline in tourism-related revenue, impacting the local economy. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13618-3 | Impact on Energy Development: The plan restricts energy projects, including renewable energy projects, limiting our ability to strengthen our distribution and transmission power grids while hindering our ability to provide reliable, affordable, and clean energy sources and local economic growth in this sector. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; | #13624-39 | Solid and Hazardous Waste WDEQ has primacy for permitting hazardous waste treatment, storage, and disposal facilities. To comply with Resource Conservation and Recovery Act (RCRA), facilities in Wyoming subject to the RCRA must comply with the authorized State requirements instead of equivalent federal requirements. The Draft RMP/EIS should acknowledge that operators and BLM would have to coordinate with WDEQ for activities that are subject to RCRA. For example, Goal/Objective SR-01 on page 2-213 of the Draft RMP/EIS, does not reference WDEQ's authority. BLM needs to clearly identify WDEQ's primary authority to regulate solid and hazardous waste. | See Section 1.4 for the Planning Criteria for the RMP and Appendix E for a list of laws, regulations and policies that are applicable to the plan. |

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| abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13624-40 | Coordination and Consistency In the Draft RMP/EIS, Key Coordination Actions only lists coordinating with WDEQ for water quality, development of monitoring for visibility standards and guidelines, and collecting air quality data. Draft RMP/EIS, Table 5-2 Key Coordination Actions, § 5.1.2, p. 5-4. Key Coordination Actions should include all applications of WDEQ's primacy including, but not limited to, solid and hazardous waste, carbon sequestration, mining and minerals development. Id. This fails to acknowledge all the areas where WDEQ has authority to regulate protection of human health and the environment. | Table 5-2 summarizes coordination actions undertaken by various federal, state, and local agencies for the RMP development process. This table is not intended to be an all inclusive list of WDEQ authorities. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-15 | On page 4-7, BLM discusses the monetization of impacts from greenhouse gases (GHG). BLM says these are used as a measure of the benefits of GHG emissions reductions to inform agency decision-making. Nowhere in this document does BLM analyze or measure the social cost of eliminating oil and gas activity and production. The elimination or reduction of oil and gas production will have an immediate socioeconomic impact on local communities, the state, the nation and the world by eliminating supply, increasing costs, eliminating jobs, and decimating local communities. | NEPA does not require a cost-benefit analysis; Socioeconomic impacts are disclosed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-17 | On page 4-8, BLM states they followed the Interagency Working Group (IWG) recommendation on running various analyses of social cost of GHGs, including running an analysis of "higher than expected" economic impact from climate change. BLM and IWG state that this analysis must be run due to "uncertainties." Surely these "uncertainties" could result in less than predicted damages resulting in lower costs or lower than expected impacts from climate change. The costs of implementing a conservation alternative will surely result in actual irreparable damages to jobs, businesses, local communities, and the state. BLM must analyze this lower than expected economic impact from climate change scenario to ensure a full and complete consideration of all proposed alternatives. In addition, nowhere in the RMP does it appear that BLM ran an economic analysis related to the elimination of most of the economic drivers for jobs and revenue in the communities within the RSFO or the analyzed area. A true accounting of all social costs must be completed, not just social costs of GHGs. | Social cost analysis follows the guidance on the Interagency Working Group. NEPA does not require a cost benefit analysis, though some economic impacts are determined as discussed in Sect. 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-18 | On page, 4-11 and 4-12, BLM presents calculations of direct emissions expected from oil and gas development. As previously mentioned, since BLM used an inappropriate RFD for oil and gas in this evaluation these emissions are likely grossly overstated (based on facts that the expected development and production used by BLM was much higher than the actual oil and gas development and production). BLM also did not rely on the recently issued EPA methane emissions rule in its evaluation of the emissions from oil and gas development. Using EPA's emissions estimating tool for fugitive emissions, which was created in 1995, is inappropriate when EPA's methane emissions rule was updated in 2023. These emissions calculations must be updated using more accurate data so that representative emissions are presented for consideration. | The RFD and the AQ analysis are not goals or intended outcomes; but rather baseline measurement tools for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-25 | In section 4.22 Socioeconomics, BLM states that social impacts may be judged differently by different stakeholders. While this is true, there are also likely some scenarios where different stakeholders would judge them the same. For example, if most jobs in a community are tied to natural resources development and BLM restricts that natural resource development so severely that the communities themselves are at risk, then everyone likely agrees that the BLM restriction was contrary to their community's interest. | Socioeconomic analysis is covered in Appendix N. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-26 | BLM's assumption that the pace and timing of mineral development activities is based on a variety of factors outside of management decisions of BLM is not entirely true. BLM's processing times of permits, EIS, EA and other reviews surely impacts the pace and timing of mineral development. In some cases, such as the Normally Pressured Lance gas development, BLM's process took so long that the economic factors are now different and these external factors are now impacting the pace and timing of the project. If BLM's review had been completed in a timely manner the project may have seen a more rapid pace of development, creating jobs and revenue for people and communities. | BLM's permitting process for mineral development is outside the scope of this RMP. Refer to Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-27 | On page 4-235 BLM describes the methods for its analysis of oil and gas economic impacts. BLM is utilizing the royalty rate for existing oil and gas production for all existing and potential future oil and gas production. BLM should revise this analysis to accurately capture the current royalty rate for new leases. The quantified economic output for oil and gas would significantly increase in Alternatives A, C, and D if BLM were to use the current royalty rate. This would be an accurate analysis of the significant economic reliance this region has on oil and gas to sustain itself and would accurately report the severe impact the agency's preferred alternative (Alt B) will have on the socioeconomics of the region. | Out of scope - There is insufficient information to determine how the royalty rate increase will impact federal oil and gas development given how dynamic and complex the global oil market is. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-28 | On page 572 BLM lists various social impacts due to the "boom" of oil and gas, but nowhere is a list of the real potential social impacts that the selection of Alternative B will have on communities in the area by eliminating more than half the jobs available in the communities and removal of over $1 billion in economic activity in the communities. BLM only mentions the undesirable impacts like pressure on inflation, housing, infrastructure, etc. but makes no mention of the desirable impacts such as significantly more jobs, much higher wages, more taxes and revenue in the communities, opportunities for new infrastructure like libraries, recreation centers, and schools that can be built with these funds. This socioeconomic analysis is woefully inadequate in its attempt to analyze oil and gas impacts. BLM must reanalyze the socioeconomics of the management actions in this RMP and report accurately the impacts the selection of Alternative B would present. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-29 | In the socioeconomic section of Alternative B, BLM tries to minimize the significant impacts Alternative B would have on communities due to the reduction of oil and gas allowed in Alternative B by stating the following. "It is possible that overall oil and gas development may not be as affected by BLM's actions under Alternative Bas the large reduction in BLM managed well counts would seem to indicate." The problem with this statement is that Alternative B is likely overestimating the number of wells that will be drilled in the future, as was previously detailed in these comments. The economic benefits contribution from oil and gas for Alternative B is most likely overestimated by BLM. This is due to the incorrect analysis of the impact of the ROW exclusion on existing leases. BLM assumes wells can still be drilled on existing leases, but the problem is man of these locations will be undrillable since roads and/or pipelines will be able to reach the well pads. Many additional wells that BLM assumed will be drilled and therefore quantified an economic benefit from, will actually not be drilled and so the economic benefit will be lost. Alternative B will actually provide much less economic output than the $827 million annually reported by BLM. This analysis by BLM is flawed and must be re-completed. | Appendix N provides the methodology for the economic impact analysis, which also includes indirect impacts. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13658-9 | The Reasonably Foreseeable Development Scenario (RFD) used in this EIS is severely outdated. The analysis itself states, 10 years ago, "It is difficult to predict what will occur a few years into the future, but it is even more difficult to predict 20 years ahead. (Pg 92)" Despite this self-admission by the BLM, the appropriateness of the timeframe for the RFD is not addressed. The BLM simply states that the economic impacts were estimated from 2016-2031 (page N-4) a mere 8 years into the 20 year planning period. It appears the decision to not update the RFD was arbitrary in nature as no discussion appears related to the appropriateness of the RFD or the difference between the RFD and what had actually happened in the 12 years since the RFD was completed. According to WOGCC records oil production in 2022 was approximately 815,000 bbls compared to the RFDs prediction of 4.8 million bbls. Similarly, WOGCC records have approximately 66 BCF of gas production in 2022 compared to the predicted 197 BCF. BLM also appears to have redone the analysis in 2016 leading to changes in the Table with no explanation for the changes. There is no discussion of the vast ROW exclusions of Alternative Bin the RFD. In order for BLM to have articulated a legitimate connection between the facts and their ultimate decision, the underlying facts must be reasonably correct. It is not reasonable to use a twelve-year-old analysis that has already been shown to be completely erroneous. | The RFD is a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13665-24 | See 2023-2038 National Outer Continental Shelf Oil and Gas Leasing Program at 212-213.22 By severely reducing the potential for oil-and-gas development in one of the most mineral-rich states in a mineral-rich nation, BLM's favored alternative would constrain domestic oil-and-gas production, hence increasing the United States' and its allies' dependence on foreign sources of oil-and-gas, produced in countries hostile to the United States and with far fewer considerations of environmental or human-rights factors. | The global energy market analysis and the US reliance on foreign oil is outside the scope of this RMP. Impacts for fluid mineral development for all four alternatives can be found in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13665-26 | BLM states in passing that its preferred alternative could be characterized as "providing the least support to long-standing mining customs and culture in the planning area" and as "fail[ing] to take adequate advantage of the planning area's mineral resources to reduce reliance on foreign energy sources." RMP Draft EIS at 4-262. And that's exactly what Alternative B would do. But to be clear, "long-standing mining customs and culture" is not relegated to "the planning area." Twenty-one of Wyoming's 23 counties produce oil and/or natural gas. See Petroleum Association of Wyoming, Oil and Gas Facts and Figures.25 For over 140 years, mining and oil-and-gas development have sustained Wyoming's economy and the livelihood of its residents. The oil-and-gas industry provides crucial revenue for virtually every public service offered by the state. | Socioeconomic impacts are disclosed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13665-27 | In 2022, for example, the oil-and-gas industry was the largest economic driver in Wyoming, generating about $9 billion in economic activity and employing close to 60,000 people. Id. By comparison, the second largest industry in Wyoming that year-travel and tourism-contributed only about $2.5 billion. Id. Wyoming's oil-and-gas industry paid over $5.7 billion in labor income that year. Id. That same year, Wyoming's oil-and-gas industry contributed $2.72 billion to state and local governments in the form of various taxes, royalties, and levies. Id. Around $1.39 billion of that money went to K-12 education, followed by $623 million to the state's general fund and $208 million to public infrastructure. Id. Oil-and-gas production, by itself, accounted for over 40% of the total property taxes levied in Wyoming and nearly 80% of the property taxes levied on all minerals. | Section 4.22 discloses the predicted economic impact of the alternatives including impacts to public services |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13665-28 | Moreover, although Wyoming is also home to many renewable-energy projects, if oil-and-gas production in Wyoming were interrupted, the alternative energy sources that remained would not meet local energy needs. In 2022, renewable-energy sources generated 24% of the electricity in Wyoming, with wind power accounting for more than nine-tenths of this figure | The analysis for local energy needs within WY or the US is outside the scope of the RMP. See Section 1.4 for the Planning criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13665-29 | Although BLM acknowledges that "the reduced rates of development under Alternative B could reduce [Wyomingites'] ability to achieve desired levels of community development and individual economic well-being," id. at 2-262, the agency does not fully consider the chain of secondary economic opportunities (vendors, hotels, rentals, restaurants, service workers, and a host of other service industries or contractor jobs) that oiland- gas industry both sparks and depends on-none of which would be possible under Alternative B. | As discussed in Appendix N, the economic impact modeling does include indirect and induced jobs; and social ripple impacts are disclosed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics | #13665-31 | Alternative C. On the other, it fails to analyze the true and complete costs of restricting oil-and-gas development under Alternative B. In fact, BLM singles out the oil-and-gas sector and states: "Oil and gas development presents the highest likelihood for impacts within the planning area and in southwest Wyoming as a whole." RMP Draft EIS at T-3. With respect to air-quality impacts, for example, BLM states that "[t]he magnitude of estimated emissions of | NEPA does not require a cost-benefit analysis |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | air pollutants from BLM authorized activities and management actions is predicted to be greatest under Alternative C[,] which includes the highest level of energy development actions." Id. at 4-6. But "Alternative B, with oil and gas development levels about half of Alternative C, would be expected to result in the least impacts to air quality." Id. Even though the Draft EIS notes-correctly-that BLM's analyses of the social cost of greenhouse-gas production "do not constitute a complete cost-benefit analysis, nor do the SC-GHG numbers present a direct comparison with other impacts," id. at 4-7, it nonetheless identifies the development-friendly Alterative C as having the highest social cost and Alternative B as having the lowest social cost. See id. at 4-9. That is intellectually dishonest. In arriving at that conclusion, BLM has ignored the brute-force socioeconomic impacts that Alternative B would cause. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13665-4 | BLM's preferred alternative also could constrict renewable-energy development such as wind and solar projects. And, if oil-and-gas production in Wyoming is interrupted by selection of BLM's preferred Alternative B, then the renewable energy sources that remained would not meet local energy needs. | The analysis for local energy needs within WY or the US is outside the scope of the RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13669-1 | In addition, with the drought which has plagued the west in recent years, total cattle population numbers are reduced which in turn has created a demand situation for cattle in the total food supply. Prices for beef have increased dramatically in recent years and with increases in the world population, the demand for protein in beef will increase accordingly further exacerbating the problem of world hunger. | The analysis for world hunger and/or beef prices is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13680-1 | Alternative B would greatly reduce mineral development and production in Wyoming. This reduction would decrease local and state revenue while also harming the livelihoods of the local communities. The local communities depend on mineral development and production as a huge source of employment as the majority of the people living in SW Wyoming work for the energy and mineral industries. Alternative B would be detrimental to these local communities and the economic well-being of individuals and their families that depend on them. Not only is this detrimental to the state of Wyoming, but the country as a whole, as Wyoming is the third highest producer of fossil fuels in the country, and the largest producer of coal in the country, according to “Statista” in 2020. These resources contribute to 60% of the electricity produced in the United States. Approximately 40% of that coming from natural gas, and about 20% coming from coal, according to the U.S. Energy Information Administration in 2022. Restricting energy and mineral development on hundreds of thousands of acres in our state would affect the entire country. The country NEEDS these resources from Wyoming to be able to generate the electricity needed on a daily basis. | Section 4.22 discloses the predicted economic impact of the alternatives. The analysis for local energy needs within WY or the US is outside the scope of the RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13691-1 | Approximately 10%(2) of breeding cows with a home base in Duchesne County, go to the range within the Rock Springs Field Office (RSFO) management area near Farson, Wyoming. This represents a significant portion of the economy to not only Duchesne County, but also to Sweetwater County Wyoming and other surrounding counties in Wyoming. Needless to say, any reduction in cattle numbers permitted to graze on areas within the jurisdiction of the RSFO of the BLM, may be detrimental, if not catastrophic to the economies of both areas. In addition, with the drought which has plagued the west in recent years, total cattle population numbers are reduced which in turn has created a demand situation for cattle in the total food supply. Prices for beef have increased dramatically in recent years and with increases in the world population, the demand for protein in beef will increase accordingly further exacerbating the problem of world hunger. | The analysis for world hunger and/or beef prices is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public | #13702-3 | Management Actions in the preferred alternative (Alternative B) will negatively impact both the fluid and solid minerals industries including trona, coal, uranium, sand and gravel, and oil and gas are as follows; (MA) MA 1107, MA 1313, MA 1502, MA 4421, MA 4424, MA 4426, MA 4430, MA 4431, MA 4435, MA 4602, MA 5112, MA 5400, MA 5405, MA 5411, MA 6000, MA 6001, MA 6201, MA 6209, MA 7002, MA 7003, MA 7490, MA 7491, MA 7492, MA 7509, MA 7555, MA 7556, and MA 7558 These will have serious negative socioeconomic impacts including | Section 4.22 discloses the predicted economic impact of the alternatives |

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| Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | fewer jobs, less business for the support and service businesses for the minerals industries, and a reduced tax base,both state and locally, which will reduce funding for infrastructure and social services. Overall, a major detriment to Sweetwater County and to the State of Wyoming. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13706-2 | 3. Tourism Industry Impact: Reduced access to public lands could lead to a decline in tourism-related revenue, impacting the local economy. Energy Infrastructure and Rural Development Concerns: | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13706-3 | Economic Implications: Restrictions on energy and industrial developments could lead to significant economic downturns, affecting local economies, job markets, and the broader community. Agriculture contributes greatly to the economy of many small towns in Wyoming and would be detrimental to these small towns. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13715-1 | EPP collectively owns over 300 miles of pipelines within the Rock Springs Field Office area, and has identified additional possibilities for the expansion of its networks within the RSFO area. In additional to providing critical infrastructure for the transmission of natural gas and liquids from producers to consumers, EPP and its affiliates provide almost 100 direct jobs in Wyoming, and pay over $7 million in state taxes annually. The BLM's proposed choice of Alternative B - the most environmentally-restrictive alternative - will place literally millions of acres of currently-available public lands off limits to responsible oil and gas production, directly harming EPP's ability to provide necessary expansion of services, and imposing substantial additional operating expenses and inefficiencies for EPP's existing network. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13715-6 | BLM Failed to Consider Reduced Land Needs Associated With New Drilling Technologies. By using the outdated 2013 RFD as the basis for its management decisions, BLM also erred by failing to recognize that new drilling technologies in the interval have substantially reduced the 2 Executive Summary at 6 (Environmental Consequences). surface disturbance associated with new oil and gas drilling. The RFD assumed that all new drilling within the RFSO would occur on one-well pads, due to the then-speculative nature of use of multi-well pads.3 As technology has developed, multiple wells can be drilled from single pads, and long horizontal laterals mean that far more oil and gas can be extracted from each well.4 The results of the BLM's failure to consider current oil & gas technology existing as of the date of the DEIS is that BLM greatly overstated the surface effects of future oil and gas production, and understated the socioeconomic loss in worker income, business revenues, and state taxes and royalties, from its proposed elimination of millions of acres of public lands from availability for leasing. | Assumptions about energy and mineral development are provided in 4.11 and is based on what was considered economically recoverable. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13721-11 | The 2021 Wyoming ORV Report shows that OHV riding generates over $365 million per year in overall economic activity across Wyoming. Use data is provided for both visitor days and visitor trips. In particular, the 'Southwestern Wyoming' area - of which the RSFO is a predominate portion of - accounted for 10.6% of all Wyoming Resident trips and 7.6% of all Resident riding days. Nonresident trips to this area were 4.7% of the statewide total and 4.1% of Nonresident riding days in Wyoming. Residents spent an average of $55.57 per day and averaged 37.8 riding days per year - with total Resident ORV riding days totaling 2.2 million. Comparatively, Nonresidents spent an average of $87.27 per day while riding an average of 14.3 days per year in Wyoming - with Nonresidents riding days totaling 455,000 in the state. Consequently, there were approximately 167,200 Resident riding days and 18,655 Nonresident riding days within this particular area of Wyoming - totaling 185,855 recreation use days just | The importance of OHV is provided in 3.18.1 and the higher spending profile of OHV is discussed in N.2.5; Economic impacts from alternatives is in Section 4.22 |

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| mine lands) (8000- 8012) | | from OHV recreation. ORV visitor spending from 15.3% of total statewide ORV trips in this area equates to over $55.8 million annually. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13726-1 | The top ten property taxpayers in the county pay roughly 109 million of the 200 million in property taxes. If the proposed preferred Alternative B is used, we could see severe devastation to our local entities that rely on property tax based off your economic analysis. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13726-2 | Lastly, the social impacts driven by economic changes, such as stresses on community resources and cohesiveness, would be significantly reduced under Alternative B. This is attributed to the much lower levels of oil and gas development compared to Alternative A . However, this reduction in development might not align with the expectations and economic plans of local communities, which have historically adapted to higher rates of resource development | Section 4.22 discloses the predicted social impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13727-2 | Our business are car washes and we operate businesses that are service providers to the many businesses that work and operate on BLM leases or have to cross BLM land in order to reach private property so that they can operate. By decreasing Natural Gas production from Alternative D 82,005,381 to Alternative B 21,947,512 the BLM will decrease the ad valorem tax revenue by two thirds. The decrease is even more severe for crude oil production. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13734-1 | The studies performed by this DRMP are outdated. The span of time from the original studies (2011) to the current draft (2023) is excessive. The economics and socioeconomics of the State of Wyoming and Sweetwater County have changed in the last decade, especially considering the lifestyle changes of so many people during the pandemic and should be reevaluated. This DRMP should be reevaluated using new studies, and up to date data. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The RFD and socioeconomics analysis are not goals or intended outcomes; but rather baseline measurement tools for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13750-1 | Without the critical tax revenue derived from the mineral industry in Converse County along with all the participating counties in southwest Wyoming, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety, and security. Funding derived from mineral exploration and development, grazing, agriculture, recreation, and tourism constitutes a significant portion of revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socioeconomics of the communities and eliminates a critical funding stream for not just Converse County, but all counties, the State of Wyoming, and its residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. | See Chapter 1 for a description of the planning area, which does not include Converse County. Section 4.22 discloses the predicted economic impact of the alternatives including impacts to public services within the planning area. |
| 837 - Socioeconomic | #13751-2 | As a result, any BLM management actions that limit the development of new production or cause the decline of existing natural soda ash production in the Green River basin would, in effect, prevent that soda ash production | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |

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| Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | from happening anywhere in the United States. Because soda ash is critical for the production of other essential products, production that cannot occur in the US will almost certainly move to foreign nations, most likely China, and will likely be produced using synthetic soda ash production technology. Over 40% of the worlds soda ash production already occurs in China and given the rarity of trona resources worldwide, the vast majority of that is synthetic soda ash production. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-3 | Synthetic soda ash production uses salt, limestone, and ammonia to produce soda ash, rather than trona. This process is much more complicated and more energy intensive compared to natural soda ash production trona. US natural soda ash production from trona uses less than 50% of the energy and results in 37% less greenhouse gas emissions for each ton produced compared to synthetic soda ash production. Any reduction in ability to produce natural soda ash in the KSLA will not only move that production to foreign nations but will result in higher energy consumption and greenhouse gas emissions. | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-42 | As an example, Table 4-13 shows a steady increase in gas production through 2011 up to a maximum of 246,813,957 MCF in Sweetwater County (source WOGCC data). However, gas production has actually decreased in the period since the socioeconomic report, as an example WOGCC data indicates Sweetwater County gas production in 2022 was 165,156,569 MCF. In other words, the gas production trend has plummeted, and is not increasing as presented by BLM. This is just one example, but the data throughout the report is flawed because it is outdated and misses key economic factors that have occurred over the past decade. In many cases, the trends are completely different from what is presented in the draft RMP/DEIS. | The fluid minerals drilling projection prepared for the Rock Springs RMP Draft EIS was based upon two factors, a) historical drilling levels and b) industry future drilling projections. At the time the drilling projections were prepared, natural gas prices were very robust which led to high levels of drilling and optimistic projections of future drilling. Subsequent to development of the RMP, natural gas prices have been much lower than projected and drilling activity has slowed significantly to reflect that low price. That being said, the reasonable foreseeable development (RFD) scenario is still adequate to use for quantification of the impact analysis in the Draft EIS." |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-43 | Table U-1 Summary of Impacts, (in particular page 2-19) regarding emissions for the various years is meaningless because the baseline data is very outdated and because the base year is not defined. Therefore year 10 and year 20 are meaningless. BLM must revise the analysis and provide a base year (like 2024) which will then describe year 10 and 20 (i.e. 2034, 2044). | See Appendix T for the Air Quality Technical Support document. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-45 | There is no way to use trend data to correct this type of outdated information. | The RFD is a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety | #13751-54 | The plan, in particular Alternative B, but also the other Alternatives will result in economic impacts to the region, state, and nation. It may eliminate jobs (livestock grazing as an example). Also, as an example, Alternative B closes many acres to sand and gravel. That will increase the cost of highways, home foundations, industrial facilities, etc. This must be considered in the socioeconomics and will have an amplified trickle-down effect on social justice and minority groups (which BLM has not considered but must per their own rules and E.O.). Specific examples of how the plan's economics and socioeconomics are flawed are as follows: | This impacts are discussed qualitatively in Chapter 4 given the speculative nature of the demand and availability of alternatives sources. |

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| (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-55 | The Socioeconomic baseline report is dated July 2013 and as such is over 10 years old and is no longer accurate. The socioeconomic report must be updated. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-56 | The Socioeconomic baseline report, Section 1.1 provides the Regulatory and Policy basis for the socioeconomic report. The report fails to reference the required EO 12906 which requires the information to meet Federal Geographic Data Committee (FGDC) standards. Again, the RMP must not hand pick and choose which EO's it follows, and which it does not. Since 2013 several Federal EO's and regulations have been issued, such as EO 13985 and EO14008 and must now be incorporated into the analysis of this draft RMP/DEIS. | As reported in Section 1.4, BLM is following EO 12906. BLM follows our EJ guidance provided in IM 2022-059 as also appropriate for the more recent EOs. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-57 | Section 4.1 of the Socioeconomic baseline report presents unemployment using data through 2010. This information must be updated because it is outdated. The data doesn't include any COVID-19 period information. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-58 | The socioeconomic report is outdated as it utilized Census Bureau information and must be updated. The socioeconomic report details oil and gas production and economic information in Section 4.5.2. This information is outdated and as such creates an economic assumption in the socioeconomic report that is no longer factual. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13751-59 | As an example, Table 4-13 shows a steady increase in gas production through 2011 up to a maximum of 246,813,957 MCF in Sweetwater County (source WOGCC data). However, gas production has actually decreased in the period since the socioeconomic report, as an example WOGCC data indicates Sweetwater County gas production in 2022 was 165,156,569 MCF. In other words, gas production has plummeted, and is not increasing as presented by BLM. This is just one example, but the data throughout the socioeconomic report is flawed because it is outdated and misses key economic factors and trends that have occurred over the past decade. As a similar example, the IMPLAN model was based on outdated census information and assumes school district enrollment numbers to increase. However, according to Wyoming the Department of Education (reference: https://edu.wyoming.gov/data/statisticalreportseries-2) total school enrollment in Uinta, Sweetwater and Lincoln Counties has decreased by 522 students from 2011 to 2022. As such, the basic input factors in the socioeconomic | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |

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| mine lands) (8000- 8012) | | report (refer to Appendix E) must be updated and the socioeconomic report re-issued. Once it is re-issued, the RMP assumptions and planning must then be updated accordingly. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-60 | RMP/DEIS and described in more detail in a technical supplement or RMP appendix. The disclosure must include the fact that the data is significantly outdated and is no longer applicable to the current socioeconomic condition. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-61 | On October 5, 2023 the Sweetwater Economic Development Coalition held a panel meeting regarding Southwest Wyoming Growth and Expansion (https://www.youtube.com/watch?v=lmlX7O9TIHI); five local projects were discussed that will have a significant socioeconomic impact on the RMP area. The RMP and its socioeconomic impact study are out-of-date and flawed because it does not include any of these important projects, nor their cumulative impacts even though the BLM is already well into the NEPA analysis for these projects. BLM must not choose to ignore these projects in the RMP analysis. | Cumulative impacts are discussed in Appendix T. The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-62 | The cooperating agencies, in particular Sweetwater County, the City of Rock Springs and the City of Green River along with the BLM must consider alternatives for land adjustments in order to accomplish the housing needs for the future expansion and growth of the community. The future socioeconomics of the area depends on the agencies to make these proper public land tenure adjustments which must be added to Appendix K. Lacking this collaboration and required decision making, southwest Wyoming may never see these projects, which will have a long-term negative impact on the local, state and national economy, and ultimately go against the goal of E.O. 14008. | Impacts of realty actions are discussed in Section 4.19. See also Section 1.4 for the Planning Criteria for the RMP, which does not include a housing needs assessment. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-63 | Page T-29: "Levels of coal and trona production in the RSFO over the planning period will be determined largely by market conditions, including commodity prices and costs of production. It is possible that coal production and attendant economic activity could decline over time due to price competition from other energy sources or broader (non-BLM) regulatory factors. None of the alternatives would impact coal and trona production in ways that significantly exacerbate or counter the larger forces acting on these industries." A remarkable statement given the acreage chart at V-18 under the title "Closed to Trona Leasing and Development" shows total acres for Alternative B of 2,119,920. This has not been properly evaluated in the outdated socioeconomic report. | See discussion in N.2.3 for rationale. Valid existing leases will not be impacted. Also note, the socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13751-71 | To be transparent, the BLM must publish the cost to administer the Rock Springs RMP under each alternative. The public should understand the cost of each alternative. | BLM administration costs are outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic | #13751-77 | Mineral Resources. The preferred alternative (Alternative B) will negatively impact both the fluid and solid minerals industries including trona, coal, uranium, sand and gravel, and oil and gas. Subsequently it will have serious | Section 4.22 discloses the predicted economic impact of the alternatives and its indirect impacts |

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| Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | negative socioeconomic impacts including fewer jobs, less business for the support and service businesses for the minerals industries, and a reduced tax base, both state and locally, which will reduce funding for infrastructure and social services. These negative impacts of Alternative B occur primarily through Management Action (MA) MA#1107, MA#1313, MA#1502, MA#4421, MA#4424, MA#4426, MA#4430, MA#4431, MA#4435, MA#4602, MA#5112, MA#5400, MA#5405, MA#5411, MA#6000, MA#6001, MA#6201, MA#6209, MA#7002, MA#7003, MA#7004, MA#7005, MA#7006, MA#7014, MA#7490, MA#7491, MA#7492, MA#7509, MA#7555, MA#7556, and MA#7558. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13752-4 | The BLM did not include a detailed analysis of socioeconomic impacts when considering the elimination of approximately 1.7 million acres of land currently available for renewable energy development in the updated Management Plan. Excluding development from large portions of the management area will have significant negative impacts on local residents' career and ancillary support opportunities, as well as lost revenues associated with city, county, and state taxes and fees. The severe restrictions proposed under BLM's preferred alternative would result in an approximately 56% decrease in economic output and would decrease the available jobs by 56%. That amounts to the direct loss of nearly 3,000 jobs. | Impacts to renewable energy development are discussed in 4.19; It is too speculative to indicate what projects would be developed to calculate economic impacts. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13755-1 | Tata is one of five major soda ash/trona producers that holds leases in the Known Sodium Leasing Area ("KSLA") of southwestern Wyoming. The trona resource in this area is recognized as the world's largest commercial source of natural soda ash, which is used in a variety of commercial and household goods. This unique resource is of international and national importance. As the only sizable deposit of domestic trona, decisions that diminish the supply or ability to produce trona from this area could result in price volatility with a shift in investment to Chinese sources and away from domestic companies. | The global trona market analysis and the US reliance on foreign supply is outside the scope of this RMP. Impacts for solid mineral development for all four alternatives can be found in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13757-1 | Because of the huge revenue Wyoming receives from oil and gas, trona and coal it has been estimated the state would lose 1 billion dollars in revenue, 3500 jobs in the oil and gas industries with their associated business and more in the soda ash(trona) industry Alternative B is a very bad option on its own. Alternative B would impose (Appendix U at 5) "no surface occupancy" restrictions on 813,354 acres and controlled surface use restriction s on 99,674 acres for fluid development. The result could possibly slow down or even prohibit future development for mineral fluid extraction. Additionally Alternative B under (Volume 2, Appendix U at 6-7) would close 3,737,526 acres to coal development, 2,581,741 acres to mineral sales and disposals, and 49,224 acres to trona leasing and development… How can any of these restrictions under Alternative B benefit the state economically and lead to more growth? | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13757-2 | It is my understanding that Alternative B would remove 8576 acres for livestock grazing. (Vol 1, ch 3at 2-59) This alternative would "rest all treated areas a minimum of five growing seasons from livestock grazing." (Vol 1 ch2 @2-2-57) This amount of time and acreage removal would put some ranchers in Wyoming out of business. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety | #13776-4 | Emphasizing conservation and pristine experiences may limit the type of visitor able to enjoy public lands. Several places in Volume I mention the value of "pristine" experiences, with Alternative B's conservation focus offering the most of those opportunities. However, the ability to access such pristine areas may be limited by socioeconomic factors and physical limitations. | Recreation impacts are discussed in sect. 4.17 |

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| (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13783-40 | Total economic output from oil and gas development and production would drop to less than a third, and industry jobs would drop from approximately 4,000 to about 1,000. While BLM cites these figures in its EIS, it fails to translate these enormous losses to actual effects to the people and communities of southwest Wyoming. What does the loss of 3,000 good paying, reliable industry jobs mean for the communities of Rock Springs and Green River, and surrounding smaller communities, which have a total population around 35,000? | The socioeconomic analysis is not a goal or intended outcome; but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives and its indirect impacts. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13783-41 | BLM also predicts that Alternative B will result in about a 50% drop in severance taxes and federal mineral royalties for local communities. But what does that mean for local governments, schools, and emergency services that rely on these income sources? Will declines in good paying jobs and local services lead to greater population loss and a general decline in the quality of living and health in local communities? BLM fails entirely to take on these questions. | Section 4.22 discloses the predicted economic impact of the alternatives and its indirect impacts |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13783-42 | If BLM's proposed Alternative B shuts down new development because Wexpro cannot drill new wells without access to rights-of-way, for instance, Wexpro could be forced to lay off employees and cancel dozens of contracts with local service and supply companies. These are real people who would lose their livelihoods as a result of BLM's short-sighted and unnecessarily restrictive management regime. Federal royalty revenue and property tax revenues will decline over time as production tails off and new drilling is not permitted. The trickle-down effect would extend outside of the Rock Springs planning area since the produced natural gas is delivered to DEUWI customers, most of whom reside in Utah's population centers. Without Wexpro's continued production, heating and energy costs will are likely to increase for average consumers because Wexpro's ability to act as a physical hedge against natural gas price volatility will be diminished. BLM fails to discuss these tangible and reasonably foreseeable socioeconomic consequences. | Section 4.22 discloses the predicted economic impact of the alternatives and its indirect impacts |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13784-25 | * MA#4420, Alt B: "Prohibit livestock grazing in big game parturition habitat during the birthing season (usualy from May 1 through June 30)." Comment: Most BLM livestock grazing permits overlap with big game habitat and the dates indicated. For those livestock grazing permittees in the prohibited areas, this would likely cause significant economic impacts to their operations. Additionally, BLM must incorporate the Wyoming Land Health Standards to ensure livestock grazing is a significant causal factor for not providing adequate forage and habitat in the parturition areas. | Economic impacts are disclosed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13784-29 | MA#4610, Alt. B: "Prohibit surface disturbing activities in potential habitat areas of Special Status plant species." Comment: MA#4610 goes even further than known locations and will have devastating impacts to industries utilizing the project area for development given the unknown "potential habitats." | See Chapter 3.8 for a description of Special Status species for the RMP. Management of Special Status Species is included for all alternatives in actions 4600 - 4624 and the analysis can be found in Chapter 4. |

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| mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13784-31 | * MA#5305, Alt. B: "Prohibit surface disturbing activities in Adobe Town and Desolation Flat/Desolation Point Areas." Comment: It remains unclear of all activities considered and prohibited as a surface disturbing activity. The total number of prohibited acres from surface disturbing activities when compiled is incredibly high and will undoubtedly cause harm to the industries using the project area and those employed in the local communities. | See Glossary for a definition of 'surface disturbing activities'. Also, Socioeconomic impacts are disclosed in Section 4.33 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13784-75 | 4.22.3 Summary of the Quantitative Economic Impact Analysis: "Total labor earnings attribute to BLM-administered land in the RSFO total $379 million annually in 2016 in Alternative A, $168 million in Alternative B, $388 million in Alternative C, and $377 million in Alternative D." ((p. 4-243) "Annual total employment attributable to BLM-administered land in the RSFO totals 5,435 jobs annually in 2016 in Alternative A, 2,515 jobs in Alternative B, 5,549 jobs in Alternative C, and 5,399 jobs in Alternative D." (p. 4-244) "Many ranchers work elsewhere part-time and rely on the ranch for only 20% of their income (Hanus 2011), relying instead on outside jobs or other savings to support their ranching lifestyle. (p. 4-253) "In addition to its role in supporting lifestyle values for ranchers, livestock grazing on BLM-administered land supports the publicly and privately held open space that is a key component of the landscape of the west." (p. 4-253) Comment: The statements above regarding the economic impacts from BLM selecting Alternative B are greatly concerning. The fallout of selecting and implementing Alternative B extends well outside of the project area. Specific to local ranchers in the Sweetwater County area who work off the ranch part or full time, could get hit financially in a number of ways, As an example, if ranchers using BLM lands for livestock grazing loses AUMs through Wyoming Land Health Standards evaluations and reductions, closures of grazing areas, or simply the inability to graze due to the numerous factors under Alternative B, these could impact their overall ranching operation. For those ranchers who also work off the ranch in the project area, which may include oil and gas, trona, coal, trucking, excavation, reclamation, etc. all of those jobs are likely impacted and reduced or eliminated by Alternative B. The BLM's decision to select Alternative B in the Final Record of Decision would economically devastate the community and county. | Section 4.22 discloses the predicted socioeconomic impacts for all four proposed alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13784-76 | 4.22.5 Impacts of Alternative B, Quantified Economic Impacts: "The quantified impacts of livestock grazing, coal and soda ash production, and recreation are the same under Alternative B as Alternative A." (p. 4-258) Comment: The economic impacts analysis for livestock grazing is solely based on the difference between AUMs, which is 6,202. While this seems relatively benign in relation to the total AUMs in the project area, the economic impacts analysis neglects to include the cumulative impacts and subsequent economic effect Alternative B will have. The economic impacts left out of this analysis include the predator losses to livestock producers who no longer can lethally remove predators. The death loss of livestock without lethal control is likely to increase significantly. Additional economic effects the impact analysis neglects to calculate is the loss of AUMs from implementing the management actions which reduce AUMs by 20% where Wyoming Land Health Standards are not met. Regardless if livestock grazing is the significant causal factor, up to 60% ofAUMs could be removed. This could dramatically change the economic impacts analysis if BLM provided the information based on existing standards evaluations. | Appendix N, Estimation of Forage Utilization describes that BLM conducted an economic analysis on two different AUM scenarios, with the historical billed AUMs resulting in no difference among management alternatives. Alt B's decrease is related to changes in authorized use and those economic impacts are found in Appendix N. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13785-1 | Alternatives lack attention to water quantity and should all be revised to be inclusive of the value of Wyoming's water. Some obvious examples are the impacts beneficial use has on Wyoming socioeconomics, and the impacts unwarranted phreatophyte additions have on return flows, conveyance and transit losses, and that consumptive use and conserved consumptive use is important for compliance to the 1948 Upper Colorado River Compact and the North Platte Decree. The Wyoming State Engineer's Office should be a direct collaborator to evaluate the alternatives for these amendments. | Impacts to water resources is discussed in Section 4.5; Water resources are discussed in the nonmarket value of Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public | #13785-19 | Socioeconomic 315 3.23 Water in Wyoming has a significant impact to the socioeconomics across the Green River and North Platte River basins. A description of the value of water in Wyoming needs to be included in Chapter 3 | The value of Water is discussed in the nonmarket value of Section 4.22 |

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| Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13787-15 | Trona mined and processed in the Known Sodium Leasing Area (KSLA) in the Green River Basin is used to produce approximately 12 million tons of natural soda ash, with the industry providing 2,300 direct jobs, nearly $400 million in payroll, and about $100 million in local, state, and federal taxes and royalties. Soda ash is a critical input for the manufacture of many other essential products including glass, lithium carbonate for batteries, and baking soda for foodstuff. Trona resources of a substantial quantity and purity to support commercial natural soda ash production are rare worldwide, including the rest of the United States outside of the KSLA. There is no other location in the US that contains trona resources in the quantity and purity necessary for the development of new substantial production of natural soda ash. As a result, any BLM management actions that limit the development of new production or cause the decline of existing natural soda ash production in the Green River Basin would, in effect, prevent that soda ash production from happening anywhere in the United States. Because soda ash is critical for the production of other essential products, production that cannot occur in the US will almost certainly move to foreign nations, most likely China, and will likely be produced using synthetic soda ash production technology. Over 40% of the worlds soda ash production already occurs in China and given the rarity of trona resources worldwide, the vast majority of that is synthetic soda ash production. Synthetic soda ash production uses salt, limestone, and ammonia to produce soda ash, rather than trona. | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13787-3 | Trona mined and processed in the Known Sodium Leasing Area (KSLA) in the Green River Basin is used to produce approximately 12 million tons of natural soda ash, with the industry providing 2300 direct jobs, nearly $400 million in payroll, and about $100M in local, state, and federal taxes and royalties. Soda ash is a critical input for the manufacture of many other essential products including glass, lithium carbonate for batteries, and baking soda for foodstuff. Trona resources of a substantial quantity and purity to support commercial natural soda ash production are rare worldwide, including the rest of the United States outside of the KSLA. There is no other location in the US that contains trona resources in the quantity and purity necessary for the development of new substantial production of natural soda ash. BLM management actions that limit the development of new production or cause the decline of existing natural soda ash production in the Green River basin would, in effect, prevent that soda ash production from happening anywhere in the United States. | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13787-5 | Wyoming is the also the top coal producing state in the nation, and coal remains critical to the state's economy. In 2022, the financial contribution from coal to state and local governments in the form of taxes, royalties and fees was over $562.7 million. Wyoming's share of federal mineral royalties - royalties paid on mining the leased federal coal - was over $184 million (with a $229.7 million share paid to the federal government). Revenues generated from the federal coal resource fund federal, state and local governments, highways and roads, schools and community colleges, and the University of Wyoming. Billions of dollars in revenues from Coal Lease Bonus Bids have built new schools and facilities in every county in Wyoming over the last 3 decades. | Section 4.22 discloses the predicted economic impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13787-6 | Coal remains the only abundant, consistently low-cost, and reliable source of electricity generation in the United States at a time when grid reliability is rapidly deteriorating due to the hasty build-out of heavily subsidized, highly unreliable wind and solar. And coal fired base load generation remains critical as the nation moves ever further down the path of over- reliance on unreliable alternative energy sources such as wind and solar, and volatile natural gas subject to price swings. Efforts to restrict the federal coal resource will have a negative effect on Americans not only in terms of reliability, but significantly higher energy prices as well. | The global energy market analysis and the US reliance on foreign sources is outside the scope of this RMP. Impacts for all mineral development for all four alternatives can be found in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public | #13793-6 | The widespread removal of federal land from productive economic uses as proposed by Alternative B will chill investment and the accompanying employment and rural economic contributions that come from private investment. For example, Alternative B would lower the potential for future investment in carbon capture and storage related to natural gas production in the management area, and limit Wyoming's ability to keep leading the nation in advancement of this critical tool for decarbonization at scale - one supported by the Biden Administration. | Section 4.22 discloses the predicted economic impacts of the alternatives |

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| Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13795-6 | In real world terms, the stability of the industry translates to a median income of ~$82,000 and a poverty rate of ~5%, well below the national average, particularly when accounting for the size of this rural community. The impact of the industry in Green River is measured by 2,300 direct jobs, ~$400 million in payroll, and ~$100 million in various taxes and royalties. | Section 4.22 discloses the predicted economic impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13795-7 | As mentioned previously, the global demand for soda ash is spurring increased investment in Green River. There have been several announcements of expansions within the KSLA over the past few years, including Solvay's 2022 announcement of a $200 million expansion. The company, like our competitors, continues to weigh options for producing more soda ash from Wyoming's plentiful natural trona reserves. The ongoing investments in the KSLA promise steady economic growth and job opportunities for Wyomingites. This growth will yield additional tax revenue and royalties for the state, local, and federal governments. However, the growth of the domestic soda ash industry relies on the ability to access the natural resources in a cost effective manner. Should BLM-WY move forward with policy changes that impede continued or future development of the KSLA it will handicap the domestic soda ash industry and encourage Chinese competitors to work towards further market consolidation. | The global trona market analysis and the US reliance on foreign supply is outside the scope of this RMP. Impacts for solid mineral development for all four alternatives can be found in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #138-1 | Table N.7 and everything is based from 2016, | Appendix N is designed to have consistent baseline to allow for comparison across alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13811-14 | Limitations on Natural Soda Ash Production and the Potential Shift to Synthetic Trona Production Soda ash is a critical component in the production of many essential products in the United States, including glass (for bottles, containers, flat glass, and for solar panels), the production and recycling of lithium carbonate for batteries, chemicals, soaps and detergents, flue-gas desulfurization, pulp and paper, and municipal water treatment, among others. Under the Green River RMP, the trona-mining industry produces approximately 12 million tons of natural soda ash from the Green River Basin. The Green River Basin industry provides approximately 2,300 jobs, nearly $400 million in payroll, and approximately $100 million in federal, state, and local taxes annually. BLM did not adequately analyze or consider the socioeconomic effects of the four alternatives on the Planning Area. If implemented, Alternative B would limit infrastructure development and restrict trona mining and processing in the Green River Basin, where the world's largest trona resources of the quantity and purity necessary to produce natural soda ash exists. But, limiting access to natural trona reserves will not reduce commercial and industrial demands for soda ash. Alternative B could therefore facilitate a shift in production from natural, domestic soda ash to synthetic, foreign soda ash. This shift will have three significant effects. First, the shift will negatively impact local and state economies in and around the Green River Basin. Second, the supply of American natural soda ash available for export will decline, and it will be filled by foreign sources of natural soda ash-specifically Chinese produced natural soda ash. For instance, by the end of 2022, worldwide soda ash production reached a total capacity of 58 million metric tons, 16 million of which was natural. Of those 16 million metric tons of natural soda ash, 11.6 million are American, while the remaining 4.4 million are Turkish. In 2023, Inner Mongolia (China) Berun Yingen ("China Berun") added 5.0 million metric tons of natural soda ash capacity, with an additional 2.8 million tons expected by 2026. If Alternative B is implemented, Pacific's and Sisecam's production of natural soda ash cannot be fully developed, and the difference in the natural soda ash economy will instead be supplied by Chinese | Section 4.22 discloses the predicted economic impact of the alternatives and Appendix N.2.3 is focused on trona |

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| | | Berun. Third, because foreign sources of soda ash cannot fill the gap that the reduction in American natural soda ash resulting from Alternative B, there will be a partial shift toward synthetic soda ash. Synthetic soda ash production is significantly more energy-intensive than natural production,37 it will exacerbate the global climate crisis that BLM management plans are designed, in part, to mitigate against. In short, the implementation of Alternative B would harm Wyoming's 37 U.S.-based natural soda ash production uses less than 50% of the energy and results in 37% fewer greenhouse-gas emissions per ton produced than synthetic production. Pacific Soda, LLC 20 Shoshone Avenue Green River, WY 82935 Page 10 of 10 4884-4214-2618\7 economy and undermine BLM's own conservation goals. BLM could better achieve those important economic and conservation goals by ensuring that natural soda ash production can continue in the KSLA while retaining the Green River RMP's discretion to limit production on a case-by-case basis in consultation with stakeholders. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #138-2 | The Economic Output % from oil and gas should start in the 2006! During the oil bum in Rock Springs then those number would go from 74% to 92% lower! | Appendix N describes methodologies. The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-15 | I am concerned with the BLM Draft Rock Springs RMP Alternative B proposals and the impacts this plan would have on the state of Wyoming. I believe that these will not be a benefit to the residents of southwest Wyoming many of whom are my former classmates, friends and neighbors as well as numerous relatives. The BLM preferred Alternative B, will have ruinous economic outcomes. An article about the draft RMP that I recently read mentioned that the Wyoming Legislature's Joint Agriculture, State and Public Lands & Water Resources Committee met and during that meeting they determined that, "The RMP, and its preferred alternative B, highlights a broken federal National Environmental Policy Act (NEPA) process, … NEPA was designed to ensure that environmental and socioeconomic considerations are weighed in the decision-making process. Unfortunately, Alternative B, the BLM's preferred alternative, will have catastrophic economic consequences should it move forward." … "The socioeconomic study area had a 2010 Census population of more than 133,400, which is 23.6% of the total Wyoming population." A near- quarter of Wyoming's population will be impacted by this plan …". This suggests that Alternative B, the plan currently chosen by BLM will not ensure socioeconomic considerations but will actually create economic devastation to the population of the Rock Springs BLM Management area. I personally believe that this impact will go beyond Sweetwater County, Southwestern Wyoming and even Wyoming's border, as I will explain in my comments. I have been told that it is estimated that approximately 3,000 job losses will happen because of the proposed Alternative B plan and that this will equal a loss of about $40 billion per year. This would be destructive to not only these workers and their families but it would devastate our Wyoming state tax system and our economy. I actually believe this is drastically underestimated. Recently, Sweetwater County Commissioner Taylor said … "Sweetwater County will likely lose about 2,500 oil and gas field jobs. … " Another article said "… Tourism and visitor spending alone … supports hundreds of local businesses and employing over 1,400 residents, … would have a devastating effect on tourism, economic development and resident quality of life." This is approximately 3, 900 lost jobs and this doesn't include jobs lost in the Trona and Coalmining industries. Also this doesn't include the loss of possible increases in job opportunities offered by the expansion of these plants. These industries are the core of the economy that keeps these communities functioning. Not only do they provide jobs, they provide grants and other amenities to the communities they are affiliated with. | Section 4.22 discloses the predicted economic impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-16 | Even more alarming is that this number doesn't include the devastation to the jobs and livelihoods that will be lost in our local agricultural industry. When a rancher or farmer looses his business again it is his family, his employees that lose their income and financial support. This was even noted in the proposed Alternative B that it would cause ranchers to go out of business. I don't recall that it quoted a given number that would be negatively affected because of this chosen plan but from other articles I have the impression it will devastate agriculture in the affected areas. | Section 4.22 discloses the predicted economic impacts of the alternatives |
| 837 - Socioeconomic Resources– | #13826-17 | I question that when planning and choosing the Alternative Plan B it was accurately estimated the total loss of jobs and businesses this will affect in Sweetwater, Sublette, Uinta and even the counties of Fremont and Lincoln. This enormous amount of job loss through the industries mentioned above will have a domino affect on other | Section 4.22 discloses the predicted economic impacts of the alternatives |

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| Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | forms of employment within the region. These 3,000+ jobs support households with spouses and children. If these workers can't find employment after losing their jobs these families will have to relocate. This will impact the local school district employment, local grocery stores, hair salons, and basically all the businesses that sustain these populations. These jobs are often multiple generational families especially in the Hispanic and lower economic households such as the south side of the railroad tracks in Green River, Granger, Jamestown, Superior, Reliance, McKinnon, Lyman, Mt. View and Fort Bridger. I am a former Title One Teacher in the state of Wyoming and I know multiple family members often rely on the income of these jobs. An article I recently read in the 'Cowboy State Daily' suggested that about 41,000 residents live in the Sweetwater County not including the populations the other counties that will be affected. This county has nearly as much area as the entire state of Massachusetts. According to the author of the article half of residents live in Rock Springs. These job loses will impact the whole community, county, region, and state of Wyoming but it will reach beyond our state borders to the residents of Utah. It will not only impact the agriculture economy of Manila, Utah but it will impact recreational users, tourism and hunting that helps to sustain the communities of Manila, Dutch John, Daggett County and even the river floating businesses in Vernal to some extent. This is where many of the people of northern Utah go to recreate. Wyoming and Utah help each other's economies in other ways as well, most of the people of southwestern Wyoming travel to northern Utah for medical needs, shopping and entertainment as well as numerous other reasons. This BLM Alternative B may sound like it is only affecting the residents of Sweetwater County but many of the residents of the neighboring counties, for example Uinta County, work in many of the trona plants this will affect. These people who live closer to Evanston than Green River do most of their shopping and business in the Evanston area. So if they relocate then this will adversely affect this community as well. The limitation placed on the growth of the trona industry will have resounding affects not only locally but to the economy and tax base of the state of Wyoming as well as security and well-being or our nation since it is the number one producer of Trona within the nation and even it's production in the world's supply chain. It will basically make us more reliant on countries such as China to provide this product that is used in many products used in America and the world. The impacts of this alone I believe will have consequences that are far beyond our understanding and unknown at this point in time. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-19 | I recently read an article in the 'Cowboy State Daily' and the author stated that "The BLM's plan sets out the agency's goals (I believe it is referring to BLM's Mission Statement given previously) for socioeconomic resources (economics and public safety), including: * Provide sustainable economic development opportunities for a diversity of multiple-use resources including energy, mineral extraction, grazing, agriculture, and recreation, including sightseeing, hunting, fishing, tourism, hiking and others. * Provide resources and necessary access, consistent with multiple and sustainable use, for economic, cultural, and social viability at the national, regional and local levels. * Recognize the importance of mineral and oil and gas extraction as an important component to sustaining the economy of the region. * Consider local and regional economic development and land use plans in BLM decision making. Provide opportunities for economic and social sustainability at the national, regional, and local level. * Consider the impact of BLM management actions on community health, safety, welfare, infrastructure, services, housing, employment, custom, and culture." After looking at this article, I looked closer at the Socioeconomic Resources (SR) - Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) Goals and Objectives - Source: Volume 1 Rock Springs RMP Revision Draft EIS, page 283 & 284. (2-212 & 2-213) SR-01: Consider the total effect of BLM actions on adjacent, non-BLM lands. (My question: Wouldn't this apply to ranch lands, grazing, private property, mining and industry? Again isn't the chosen BLM Alternative B is opposition of this BLM Goal and Objective?) | Section 4.22 discloses the predicted economic impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-20 | SR-02: Provide sustainable economic development opportunities for a diversity of multiple-use resources including energy, mineral extraction, grazing, agriculture, and recreation, including sightseeing, hunting, fishing, tourism, hiking and others. (My question: The chosen Alternative B chosen BLM plan is in direct opposition to this BLM Goal and Objective.) | See discussion in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; | #13826-21 | SR-02.1: Provide resources and necessary access, consistent with multiple and sustainable use, for economic, cultural, and social viability at the national, regional and local levels. (My question: Doesn't the chosen BLM Alternative B not consistently allow consistent access to multiple and sustainable economic and cultural use at the local level if it will cause the loss of approximately 3000+ jobs in this location?) | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |

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| abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-22 | SR-02.2: Recognize the importance of mineral and oil and gas extraction as an important component to sustaining the economy of the region. SR-02.3: Recognize the state and regional economic importance of the Flaming Gorge National Recreation Area (NRA). Consider resources necessary to enhance the fisheries, wildlife, and recreational opportunities connected and related to the NRA. (My Question: If the BLM chosen Alternative B plan is restricting the use of these lands, shorelines, road use, off-road use and trails around the Flaming Gorge National Recreation Area which includes the Green River isn't it also not recognizing the regional, state and inter-state economic importance of the this region?) | The Flaming Gorge NRA is managed by the US Forest Service and is outside the scope of this DEIS. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. See Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-23 | SR-03: Consider local and regional economic development and land use plans in BLM decision-making. Provide opportunities for economic and social sustainability at the national, regional, and local level. (My Question: If the chosen BLM Alternative B plan affects the ability of the Trona, oil, gas and coal industries, the utilities and recreation industry to provide job opportunities for the residents within the residence within the Rock Springs BLM area and it impacts the ability of local ranchers and farmers to be profitable then wouldn't that mean that the BLM decision making for this land use plan does not carefully consider the local and regional economic negative consequences. This alone should disqualify this as an effective choice. I recommend and request that BLM not consider Alternative B and go back to Alternative A and work with the local and state people to create a plan that does accomplish this goal and objective.) | See discussion in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-24 | SR: 03.1 Consider the impact of BLM management actions on community health, safety, welfare, infrastructure, services, housing, employment, custom, and culture. (My Question: The chosen BLM Management Alternative B will create a massive reduction in job security in southwestern Wyoming and Daggett County Utah. It will as the plan admits, more than likely put local ranchers out of business. It will put this area and more than likely since it will affect the tax base of the state of Wyoming impact the rest of the state of Wyoming. Isn't this in direct opposition of this goal and objective to consider the impact of this chosen BLM management actions on community health, safety, welfare, infrastructure, services, housing, employment, custom, and culture? The culture and customs of Wyoming of the residents of Wyoming is to recreate, hunt, fish and work in and on the public lands (BLM) in the great outdoors.)This in fact is literally written into the State of Wyoming Constitution. The Wyoming State Constitution guarantees these privileges in Article 1 Sec. 39. "Opportunity to hunt, fish and trap. The opportunity to fish, hunt and trap wildlife is a heritage that shall forever be preserved to the individual citizens of the state, subject to regulation as prescribed by law, and does not create a right to trespass on private property, diminish other private rights or alter the duty of the state to manage wildlife." The rights for citizens of Wyoming to use the land for recreation, hunting and fishing are extremely limited through Alternative B. | See discussion in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13826-25 | SR-04: Respect, recognize, and support public health and safety needs. (My Question: BLM Alternative B could cause a massive lose in jobs and create an economic crisis, potentially causing the residence of southwestern Wyoming, those who live in areas impacted by this change, to be adversely affected, both physically and mentally. If people don't have incomes or homes ,their physical health and safety needs will not be met. This BLM chosen Alternative B should be rejected. The BLM needs to look into the current Alternative A and work with local and state people to create a plan that is a good compromise for the people who live in the 5 counties that will be affected by this management plan. ) | Please refer to Section 1.4 for the Planning Criteria for this RMP. Section 4.22 discloses the predicted socioeconomic impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13826-26 | By going through these individual BLM Socioeconomic Resource (SR) Economics and Public Safety Goals and Objectives it is apparent that this Rock Springs RMP chosen Alternative B plan does not meet it's own goals and objectives. This should automatically disqualify this chosen plan. I suggest this is evidence that this plan should be eliminated. The BLM should go back to the current Alternative A and work with Governor Gordan, our state legislatures, the local community and county governments to create a new plan that better meets the BLM Socioeconomic Resources (SR) - Economics and Public Safety goals and objects (8000- 8012). | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |

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| mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13831-3 | The Plan and Draft EIS's Preferred Alternative as written create significant regional socioeconomic impacts that would have an adverse impact on our local economy and the airport. Any negative pressures on existing and/or future industrial/commercial development and tourism will have an adverse impact on the airport's ability to maintain services. For instance, if existing industry were to reduce employment over time as a result of this preferred alternative, it would likely result in fewer air carrier passengers, potentially causing cessation of commercial air service in the community. Reduced aeronautical activity driven by reduced industrial development would have a significant adverse impact on the financial health of the airport, driving our dependency on local tax dollars higher. | Economic impacts including ripple effects are discussed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13848-4 | The socioeconomic analysis in the DEIS fails to adequately analyze the direct economic effect of limitations on development of renewable energy resources within the checkboard area, including with respect to local economic development (jobs, local multiplier effects, etc.), state and federal taxes, and regional availability of renewable energy. | Impacts to renewable energy development are discussed in 4.19; It is too speculative to indicate what projects would be developed to calculate economic impacts. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13859-4 | In Section 3.1, greenhouse gas (GHG) emissions are grouped with Air Resources, however the description of affected environment provides no context of GHG emissions from existing and reasonably expected future resource uses. Section 4.3.2 describes the methodology for determining the monetized "social impacts" of greenhouse gas emissions under each of the alternatives. The DEIS states that this methodology is "provided only as a useful measure of the benefits of GHG emissions reductions to inform agency decision-making." However, the assessment of alternatives only considers emissions from each resource area. The BLM should more broadly consider the potential changes in emissions, including potential improvement in conditions, for each alternative. | See Appendix P for the Air Quality Technical Report. Impacts from all alternatives are described in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13865-20 | E. MA #4426 Alternative B of MA #4426 closes areas that are near winter ranges and parturition areas to further development considerations including coal leasing. The effects of development on big game populations can be mitigated and a balance maintained through currently employed practices. The BLM should have the flexibility to consider further development and whether impacts of future projects could be mitigated. An outright closure of the winter ranges and parturition areas without consideration of other impacts or if the impacts from development could be mitigated appears to be at odds with the BLM mission to "...sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." Coal leasing and development are significant sources of revenue to the local economy and to local and state governments and closing areas to future development and coal leasing would likely impact this revenue source. PacifiCorp recommends that the BLM adopt Alternative A or D (both are the same), as this would provide flexibility to consider each project on a case-by-case basis, rather than a blanket closure. | Section 4.22 discloses the predicted economic impacts of the alternatives. Impacts to big game for all four alternatives are also included in Chapter 4. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13865-41 | B. MA #7456 Alternative B of MA #7456 will designate the Boars Tusk ACEC as an exclusion area for ROWs. This increase of exclusion area associated with the Boars Tusk ACEC reduces the ability to transmit energy to previously identified customers, thereby increasing future costs of energy grid delivery and reliability. Alternative A of MA # 7456 is preferred because it maintains the approved activities within this ACEC. | Impacts relating to all four proposed alternatives are discussed in Section 4.19 |
| 837 - Socioeconomic | #13865-42 | C. MA #7498 and #7502 Alternative B of MA # 7498 will expand the South Pass Historic Landscape ACEC to 171,300 acres (from 53,940 acres). This, paired with Alternative B of MA # 7502 making the South Pass Historic | Impacts relating to all four proposed alternatives are discussed in Section 4.19 |

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| Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | Landscape ACEC a ROW Exclusion Area, greatly reduces and/or prohibits the potential development of new electric transmission lines across South Pass to deliver cost-efficient energy. Alternative B would negatively impact the West-Wide Energy Corridor (WWEC) by reducing the area available to develop new ROWs. Specifically, Pg. 2-116 or the EIS states"[E]liminate the existing corridor identified in the WWEC ARMPA/ROD (2009) east of Flaming Gorge in the planning area (126-218). Corridor widths would be 3,500 feet wide. Designate no new corridors." The ability to site new transmission in this energy corridor is critical to renewable energy development in the west and reducing widespread impacts by line siting around areas considered exclusion zones in Alternative B. Alternative A of MA # 7498 is preferred in order to maintain the existing size of the South Pass Historic Landscape ACEC that will allow for the communities separated by the pass to grow and be delivered power reliably and cost effectively. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13865-43 | 13. Socioeconomics The BLM did not include a detailed analysis of the socioeconomic impacts when considering the elimination of approximately 1.7 million acres of land available for electric utility ROWs or renewable energy development in the DEIS. Excluding large portions of areas available development will have significant negative impacts on local residents' career and ancillary support opportunities, as well as lost revenues associated with city, county, and state taxes and fees. Under the quantified impacts of Alternative B based on analysis done in 2016, the economic output attributable to BLM administered lands totals $1.734 billion annually under the current Alternative A and directly accounted for 5,435 jobs in 2016 under Alternative A. The severe restrictions proposed under Alternative B would result in an approximately 56% decrease in economic output and would decrease the available jobs by 56% to 2,515. That is a loss of nearly 3,000 jobs. The numbers are directly attributed to the proposed plans and fail to take into account the ripple effects that will be felt across the State of Wyoming. For example, some of the socioeconomic benefits that will be incurred from the approved Rock Creek I/II wind projects (Jacobs, 2021) are: (1) nearly 500 additional construction jobs, with wages varying from $38k to $114k annually; (2) approximately 150 construction support jobs; (3) approximately 112 direct and secondary operational jobs, with wages varying from ~$50k to ~$90k annually; (4) local impact assistance payments; (5) real property taxes for construction at approximately $1.7m; (6) sales and use taxes for purchase of construction materials at approximately $31.8m; (7) ad valorem taxes during operational phase at approximately $83m over life of the project; and (8) wind electricity Generation Excise Tax at approximately $51.5m over the life of the project.1 If the BLM reduces the available area for renewable development as proposed in Alternative B, these benefits would be greatly reduced or eliminated by the prohibition of future projects in current buildable areas. Another example relates to mineral development and extraction. Mineral development and extraction, including coal mining, provide the greatest source of revenue for funding schools in the State of Wyoming between ad velarium, severance, and federal mineral royalties taxes. These operations are a significant 1 Jacobs, Final Rock Creek Wind Energy Project, Wyoming Industrial Development Information and Siting Act Section 109 Permit Application; Pages 5-1 to 5-145, December 2021. source of income for local and county governments that provide services to residents in the area. The decreased funding for schools and other important services in the communities will make the communities less attractive to other businesses and potential employees. The declining population and economic situation would likely negatively impact the ability to recruit and retain qualified employees for all businesses including BCC. A socioeconomic analysis should be completed by the BLM to understand the potentially devastating impacts that could occur by excluding significant areas of developable land. As part of the Wyoming Industrial Siting Development Information and Siting Act, all jurisdictional projects must obtain a Section 109 Permit to operate in Wyoming. All pending and approved permits are located online at the Industrial Siting Division website (https://deq.wyoming.gov/industrial-siting-2/permitting-process/) and can be utilized in the BLM's socioeconomic review for the Management Plan. Additionally, the Division has staff available that can assist in understanding real and meaningful socioeconomic impacts and methodologies for undertaking a study. | Impacts to renewable energy development are discussed in 4.19; It is too speculative to indicate what projects would be developed to calculate economic impacts. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13865-48 | In addition, Alternative B will conflict with mandates from public service commissions and national energy policy related electric transmission. PacifiCorp is mandated by public service commissions in the six states it operates to provide reliable, safe, and cost-effective electricity to its customers. Alternative B is in conflict with those state mandates. Similarly, part of national energy policy is the construction of new transmission lines. PacifiCorp, which serves portions of Wyoming is part of the Western Electricity Coordinating Council (www.wecc.org), the Federal Energy Regulatory Commission's Regional Entity for the Western Interconnection. Areas of eastern and northern Wyoming have surpluses of energy resources (resources that produce electricity) and those surpluses must be transmitted to the western U.S. to serve load in other PacifiCorp service areas, which include Native and industrial customers in central Wyoming and the Trona area. To transport this surplus electricity, additional transmission lines are required. As electricity travels the path of least resistance, it is in the best interest to build the transmission lines through the shortest path possible. Expanding the amount of restricted area as proposed in Alternative B, may result in much longer transmission lines which increases the amount of electricity losses across longer transmission lines reducing the effectiveness of the transmission line to move power. This in-turn can reduce the effectiveness of the resource projects making them more expensive or even uneconomical and unbuildable and potentially impacting economic growth of Wyoming and the western U.S. For these reasons, the inability to build transmission in the areas excluded by Alternative B will interfere with PacifiCorp's ability to provide safe, reliable, and cost-effective energy and is inconsistent with national energy policy to build new transmission. Another potential constraint created by Alternative B is related to maintaining the reliability of service provided to | Impacts relating to all four proposed alternatives are discussed in Section 4.19 |

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| | | existing and future customers while anticipating future load growth. PacifiCorp performs reliability analysis annually in the form of North American Electric Reliability Corporation compliance (TPL-001-5) to ensure that the reliability of the transmission system in the Wyoming area is maintained with the expected load growth and resource additions analyzing load growth within the next 1-10 years in the future. These reliability assessments may identify reliability concerns that require mitigation. As mitigation, PacifiCorp might propose additional transmission (i.e. new transmission lines) and/or expansion of substations to install transmission devices (shunt capacitors/ reactors) that help resolve the reliability concerns and ensure the future load growth is served reliably. Alternative B could potentially restrict transmission improvements that may be required to serve the future load growth reliably. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13865-50 | As mentioned above, Alternative B also conflicts with regulatory requirements associated with thermal generation and coal mining. PacifiCorp co-owns and operates the Jim Bridger Power Plant located approximately seven miles north of Point of Rocks in Sweetwater County, Wyoming, which is within the boundaries of the area addressed by the RMP and DEIS. The continued operation of the plant may be negatively impacted by the selection of Alternative B. Increased restrictions outlined in proposed Alternative B addressing soil and geologic resources, water resources, and hydrogeologic investigations could pose difficulty for the plant in complying with requirements of the Environmental Protection Agency's coal combustion residual (CCR) requirements. | Pacificorp's compliance with environmental laws is outside the scope of this RMP (see Section 1.4 for the Planning Criteria). See also Appendix E for a list of laws, regulations, and policies that govern this RMP. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13865-59 | "Restrict the construction of tall facilities, distribution power lines, and fences to the minimum number and amount needed." As stated previously, power lines are sited and constructed to serve customers. By this nature, lines are already built only when necessary and cannot further be restricted without impacting our ability to serve customers. In addition, this stipulation conflicts with other resource stipulations throughout the draft RMP, as the length of lines and number of structures is often increased by routing around sensitive resources. Because this stipulation is contradictory with utility requirements to serve customers and BLM's other resource stipulations, PacifiCorp recommends that it be removed from the Appendix. | Pacificorp's compliance with environmental laws is outside the scope of this RMP (see Section 1.4 for the Planning Criteria). See also Appendix E for a list of laws, regulations, and policies that govern this RMP. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-10 | Finally, it is worth noting that Alternative B's impact on renewable development is at odds with existing federal priorities. Specifically, new tax incentives under the Inflation Reduction Act and the Bipartisan Infrastructure Law contain provisions designed to channel investment into communities that are historically disadvantaged and/or likely to be negatively impacted by a large-scale transition away from fossil fuels. While the BLM's analysis does discuss the former (EPA's Environmental Justice Communities) it does not consider the latter (DOE's Energy Communities), which may be much more relevant for the RSFO. In fact, all 8 census tracts in Sweetwater County, in addition to Census Tract 56013000301 in Fremont County, all qualify as "Energy Communities," making them eligible for additional federal support for renewable energy. At a high level, this puts the BLM's preference for Alternative Bat odds with crucial federal initiatives. More to the point, any commercial wind or solar projects in these 9 census tracts would qualify for a "stackable" 10% increase in the Production Tax Credit or a 10-percentage point increase in the Investment Tax Credit.11 This calls into question the BLM's assumption that wind development in the RSFO is unlikely, as well as gives credence to the scenarios projected by Wu et al. (2023). | BLM's EJ analysis followed the guidance found in IM 2022-059. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-11 | Third, the socioeconomic analysis included in this draft RMP is sorely lacking. While the BLM is very careful to say that their analysis does not include a formal benefit-cost analysis, they do attempt to estimate both the economic impacts (costs) of each alternative, as well as the social costs of greenhouse gas (GHG) emissions under each alternative. Hence, it is possible to compare the GHG benefits of each alternative-measured as terms of foregone production. Again, this is not a complete cost-benefit analysis, but it does give useful reductions in emissions damages relative to Alternative A-with the costs in sense of the orders of magnitude differences between each scenario. A variety of non-emissions benefits may accrue from each alternative. While it is infeasible to conduct a full cost-benefit analysis before the comment period ends, comparison of emissions and mineral costs and benefits of each alternative makes it possible to estimate how large these other benefits would have to be for each alternative to pass a cost-benefit test. Table 1 below lists the avoided emissions damages and the lost economic value for Alternatives B and D, relative to Alternative A using a 3% discount rate. It also reports the benefit-cost ratio and net present value of these alternatives under the (restrictive) assumption that only emissions benefits and energy related costs reported by the BLM are considered. Table 1: Rough Comparison of Benefits and Costs from Fluid Mineral Provisions Foregone Economic Activity Relative to Alt. A Approximate Benefit-Cost Ratio Approximate Net Present Value Alt. B $29,117,753,000 0.258 $(21,614,814,000) Alt. D $226,000,000 0.633 $(82,965,000) Two points are worth highlighting. First, while neither alternative yields a positive net present value, the net losses associated with Alternative Bare over 260 times those from Alternative D. Second, another way of reading the net present value in the final Column of Table 1 is as an estimate of how large other, non-emissions | NEPA does not require a cost-benefit analysis |

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| | | benefits would have to be for each alternative to yield a positive net present value (or a benefit-cost ratio greater than one). For Alternative B to yield a positive net present value, the un-measured benefits would have to exceed $21.6 billion, or roughly 4 times the measured GHG reduction benefits. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-12 | Production forecasts are more nuanced in that they are specific to the RSFO, and the data for how these were produced are not directly available in any of the BLM documentation. If we had access to well-level data for Rock Springs, one might be able to develop some more accurate sense of new wells and annual production that could, in principle, offset the lower-than-expected prices. But, given the overall production trends for the Rocky Mountain Region over this period relative to the 2015 forecast, the RSFO would have to be a significant outlier for this to be the case. It does appear that the number of new wells spudded in the RSFO in recent years was lower than forecasted in 2015, so the same is likely true for production.12 | The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-13 | Fiscal Implications for the State. The BLM's analysis makes a cursory recognition of the tax revenue implications of the RMP and reports the estimated impacts in Appendix N, but provides no substantive discussion of the broader impacts this might have for the state. While it is difficult to precisely determine how reduced revenues will affect Wyoming's economy without a much more in-depth analysis, it is possible to at least characterize the importance of these revenues for the state budget. The specific taxes in question are locally collected ad valorem taxes, state severance taxes, and Wyoming's share of federal mineral royalties. Table 2 reports the estimated annual tax implications of Alternatives B and D, relative to Alternative A. Table 2: Estimate Reduction in Annual Tax Revenues Relative to Alternative A Local Ad Valorem Severance WY's Share of Federal Royalties Alt. B $16,957,000 $15,323,000 $18,923,000 Alt. D $228,000 $207,000 $255,000 As Table 2 indicates, foregone tax revenues under Alternative Bare roughly 74 times those under Alternative D across each category. Comparing these magnitudes to average tax revenues over 2018 to 2022, Alternative B would cause a 4.4% decrease in severance tax revenue and an 8.3% decrease in royalty revenue for the state as a whole.13 | Economics impacts and potential ripple effect impacts are discussed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-14 | Spillovers onto Private Land. The RSFO has highly fragmented surface and mineral ownership: the railroad "checkerboard" where alternating PLSS sections are owned by the BLM and private parties passes right through its center. This intertwined public and private ownership creates the scope for significant spillovers whereby public land management decisions can and usually do impact the ability to develop and use resources on private land. Although the BLM recognizes this possibility in the draft RMP, the economic impact analysis completely ignores possible impacts on private land. Withdrawal of federal minerals may create direct spillovers that render development on adjacent private lands infeasible, but identifying these impacts would require well and project-level data on oil and gas development. In general, it appears that most spacing units within the RSFO are less than a square mile, so these spillovers may be somewhat limited, but without more analysis that is difficult to predict. | Indirect impacts on private lands are part of the RFD. Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including addressing in footnote 6 that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). As noted in the DEIS, valid existing rights will be maintained (Section 1.2.1, 1.2.2, 1.4, etc.). |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-15 | Another important implication of the proposed alternatives concerns changes to rules governing rights of way (ROWs) across BLM land to develop projects. Alternative B significantly expands "exclusion" classifications for ROWs, essentially precluding access across implicated lands (see Figure 1 below). Analysis of the GIS layers made available by the BLM makes it possible to identify privately owned surface and mineral tracts that would be rendered inaccessible under Alternative B by identifying private parcels that: (i) are completely surrounded by BLM parcels designated for ROW exclusions; and (ii) lack existing road access. Table 3 reports the quantity of these "stranded" surface and mineral acres with vs. without road access under Alternative B. Table 3: Impacts of Alternative BROW Exclusions on Private Lands and Minerals Total Area Area Lacking Existing Roads Acres % Change vs. Alt B Mineral Exclusions Acres % Change vs. Alt B Mineral Exclusions Surface 502,926 23% 341,078 15% Minerals 231,475 10.5% 180,770 8% Table 3 indicates that the ROW exclusions under Alternative B would block access to hundreds of thousands of surface and mineral acres, even under restrictive assumptions. Surface impacts represent 15-23% of the fluid mineral acres withdrawn under Alternative B, and the mineral impacts are roughly 10% of the BLM withdrawals. In other words, if oil and gas development was roughly equivalent on private and public lands, the BLM's estimated economic impacts should be scaled up by approximately 10% ($82 million) to account for impacts to private mineral owners. If anything, this is a conservative estimate, as GIS data on well locations used in the RMP indicates that, on average, there are 2.77 more wells per acre on private land than on BLM land in the RSFO. | Importance of right of ways to oil and gas development are disclosed in Section 3.20.6 |
| 837 - Socioeconomic Resources–Economics and Public | #13880-16 | Solid Mineral Impacts. The draft RMP assumes no impacts to coal or trona mining within the RSFO because existing leases will not be affected, as additional leasing is not expected even under Alternative A. Evaluating the reasonableness of this assumption, without considering the effect of the other management actions is questionable and would require additional research and coordination with private developers. | See Appendix N |

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| Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-17 | The Economic Impact Analysis in the RMP estimates the value of recreation in the RSFO under Alternative A under several assumptions about representative visitation. However, the BLM makes no attempt to estimate the impact of Alternatives B through D on recreation in the RSFO, significantly underestimating the overall cost of Alternative B in particular. Ultimately, more work is necessary to accurately assess the recreational impacts of the RMP, and the BLM needs to provide significantly more detail about specific management actions and the likely locations associated with those actions for such an analysis to even be possible. | See section 4.17 for discussion of recreation impacts |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-18 | Unrealistic Assumptions in Economic Analysis and the Need for Further Study. The BLM has data on various types of recreational visits to BLM lands within the RSFO over several years, though these data are not publicly available. To estimate the economic value and impact of these visits, the BLM uses "benefits transfer" methods: they take advantage of a study of recreational values in a nearby USFS management area and assume similar values prevail on a per-trip basis in RSFO. This methodology is fairly standard and is not problematic per se. The problem is that the BLM only estimates the value of recreation in Alternative A, arguing that it is infeasible to predict recreational impacts under any of the other alternatives. There are well established survey-based techniques for estimating the projected impacts of potential policy and management changes on recreation. Specifically, the BLM can conduct a contingent valuation analysis, whereby "choice experiment" surveys are designed to elicit consumer preferences and willingness to pay for different management scenarios. | See Appendix N.2.5 about the lack of credible methodology for determining changes to recreation, which is mostly dispersed. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-19 | High vs. Low Visitation Scenario. The BLM estimates the value of recreation using a "low visitation" estimate based on average visitation over 2011-2013 and a "high visitation" estimate based on significantly higher visitation in 2014. The difference in the estimated value of recreation is significant: $21.4 million vs. $42.5 million annually in 2014 dollars (Table N-7). The BLM says that it is impossible to tell whether the significant uptick in visitation observed in 2015 was an anomaly or would continue. However, in 2023, it is now possible to determine which estimate is more plausible. While the BLM's visitation data specific to the RSFO are not publicly available, trends in visitation to state parks across Wyoming and in the RSFO suggest a sustained increase in visitation relative to the 2011-2013 period that more than matches the 2014 uptick in BLM visitation (Figure 2). The BLM should update their estimates of recreational impacts with a more detailed analysis (or withdraw the plan until such an analysis can be completed by the state). But at a minimum, they should use the "High Visitation" scenario when considering potential recreation impacts. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-20 | The first is the significant increase in Areas of Critical Environmental Concern, which can impact the regulations governing OHV use and access. Specifically, Alternative B significantly expands the area within which OHV users are restricted to designated routes. Second, as written, Alternative B will remove some 15,000 miles of roads and OHV roads in unspecified locations. Though the BLM has indicated this was included in error, the impacts of such a scenario would likely be significant. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. See updates to Chapter 4.17 removing erroneous text on route designations. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned | #13880-21 | Finally, Alternative B removes existing Special Recreation Management Areas. BLM has argued that this will not impact recreation in any meaningful way, but officials from Wyoming Parks and Recreation have indicated that these Management Areas are a critical tool for managing recreation on the landscape. Specifically, these Management Areas help the state guide and disperse recreational activity to protect sensitive sites and wildlife while limiting congestion. In other words, Alternative B could actually result in adverse conservation impacts across large swaths of the RSFO under the BLM's stated scenario that Management Areas will be removed but recreation will not be limited. This seems fundamentally at odds with the "conservation" theme of Alternative B, raising questions about whether the BLM intends to pursue subsequent closures to recreation after removing the | See DEIS Chapter 2.2.6 Land Resources - Recreation Management Actions 6521-6557 for a full range of alternatives analyzed regarding Special Recreation Management Areas. See Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |

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| mine lands) (8000- 8012) | | Management Areas. Clarification and further study on these points are essential, given that the impacts could be as large as $40 million dollars annually in an extreme scenario where recreation is severely curtailed. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13880-9 | Overlaying projected wind projects from Wu et al. (2023) with the Alternative BROW exclusions suggests that Alternative B would preclude the development of 509,000 to 3.2 million acres worth of potential wind projects in the RSFO, representing 5,760 to 36,790 MW of installed capacity.9 A full accounting of the economic impacts of wind development is beyond the scope of this comment, but some estimates suggest that wind projects generate a 1% increase in ongoing local employment for every 100 MW increase in installed wind capacity, as well as $7,000/MW in local property taxes and $3,000/MW in lease payments to landowners.10 Alternative B could lead to $56.7 million to $368 million worth of foregone local benefits annually from wind development. While these are rough estimates, they underscore the need to carefully consider and analyze potential renewable energy impacts in any serious impact analysis of the RMP. | Impacts to renewable energy development are discussed in 4.19; It is too speculative to indicate what projects would be developed to calculate economic impacts. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13892-12 | when it came time for the action items to meet these sustainability goals, none are listed. This is a huge deficiency in the DEIS. Of the nine actions under socioeconomics, all deal with hazardous substances, waste or abandoned mines. {See DEIS page 2-213.} There are no action items for sustainable economic development. There are no action items for social sustainability. There are no action items for "economic, cultural and social viability." The plan does not comply with plans adopted by county governments. "Any use of the natural resources within the planning area is likely to adversely impact long-term productivity of these natural resources," according to the DEIS. The BLM did not provide any scientific reference for making such an unsupported claim. | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13892-4 | The DEIS socio-economic analysis uses the 10-year average (2006-2015) for estimates of authorized AUMs, but does not mention that during that period, Wyoming was suffering through a historic megadrought in which livestock grazing was reduced by livestock producers in the region. The DEIS fails to provide an adequate assessment of the economic viability of the alternatives on livestock production (the production of food and fiber) | Appendix N discusses the methodology used to value an AUM to produce cattle and sheep. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13892-5 | The DEIS fails to examine how livestock production within the RSFO is linked to private lands, state lands, US Forest Service lands and seasonal production of vegetative resources on all these lands as well in adjacent areas outside the field office area. The socioeconomic impact specifically did not include this larger view that would provide information about the total impact of the BLM plan. | See Appendix T for discussion on this topic |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13892-6 | the DEIS does not discuss the positive benefits to people, land, and ecosystem services provided by pastoralism and transhumance. It does not mention how these practices are an important component of biodiversity and climate solutions, or how they are valued cultural traditions. It doesn't mention how livestock grazing reduces wildfires, or how grazing the RSFO allows the production of both high-quality food and fiber in an arid rangeland that is otherwise unsuitable for food production. | See impacts on nonmarket values in Section 4.22. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13892-7 | H-2A foreign workers rely on sheepherding jobs in America and are not reflected in socio-economic section. The analysis does not weigh the recent Department of Labor-mandated increase in pay to H-2A workers which has substantially impacted the economic sustainability of livestock producers in the RSFO. | Analysis regarding H-2A workers and Dept of Labor requirements are outside the scope of this RMP. See Section 1.4 for Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13899-104 | As discussed above, we support choosing Alternative B's fluid mineral management actions that will address multiple oil and gas leasing programmatic deficiencies, reduce the number of conflicts between oil and gas and other multiple uses, and reduce greenhouse gas emissions. However, BLM's Reasonable Foreseeable Development (RFD) scenarios and subsequent socio- economic impact analysis presented in the draft Rock Springs RMP and EIS significantly overstate the socio-economic impacts of oil and gas development. These flawed figures should be treated as an extremely conservative estimate of the impacts from the protective management called for in Alternative B and they cannot serve as a basis for departing from Alternative B. | The RFD and the socioeconomic analysis are not goals or intended outcomes; but rather baseline measurement tools for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impacts of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13899-105 | BLM's RFD significantly overestimates business-as-usual (Alternative A) oil and gas development in the Rock Springs Field Office. BLM's socioeconomic impact analysis estimates changes to local government revenue and jobs due to different fluid mineral management actions, in large part, based on an assumed level of business-as-usual oil and gas development for the 2016-2031 analysis period in the study area.266,267 BLM uses the BLM RFD 2016 to project expected rates of oil and gas well drilling and future production volumes for each alternative.268 Given that BLM's RFD was conducted in 2012/2013, we now have over a decade of actual drilling and production data to evaluate the degree to which BLM's RFD assumed numbers of annual wells drilled have reflected reality up to 2023. As shown in Figure 3, BLM's projections far overestimated future development for the business-as-usual scenario. To conduct the socioeconomic impact analysis BLM assumed that an average of 287 conventional oil and gas wells (232 BLM-managed and 55 non-BLM) and 10 coalbed natural gas wells (6 BLM and 4 non- BLM) would be drilled/year under Alternative A in the Rock Springs Field Office between 2016- 2031.269 In reality, oil and gas development has been far lower than the RFD projected for 2016-2022 even though the management plan has not changed. Between 2016 and 2022 Wyoming Oil and Gas Conservation Commission data show an average of 178 oil and gas wells drilled per year across all five counties that overlap the planning area.270 Indeed the relevant wells, the portion that is within the Rock Springs Field Office and the portion that are just BLM-administered, would likely be substantially smaller. In addition, no new coalbed natural gas wells were drilled in any of the five counties that overlay portions of the planning area since prior to 2012.271 Given historic annual drilling rates in the Field Office not even exceeding 150 wells per year, BLM's RFD decision to assume an annual average of 287 new conventional oil and gas wells (BLM and non-BLM) drilled per year (or 232 new wells per year for just the BLM-managed wells) for the 2016-2031 study period appears unjustified. | The fluid minerals drilling projection prepared for the Rock Springs RMP Draft EIS was based upon two factors, a) historical drilling levels and b) industry future drilling projections. At the time the drilling projections were prepared, natural gas prices were very robust which led to high levels of drilling and optimistic projections of future drilling. Subsequent to development of the RMP, natural gas prices have been much lower than projected and drilling activity has slowed significantly to reflect that low price. That being said, the reasonable foreseeable development (RFD) scenario is still adequate to use for quantification of the impact analysis in the Draft EIS. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13899-107 | Input-output models are known to greatly exaggerate the employment and labor income impacts, especially those related to changes in resource extraction. In addition to BLM using significantly overestimated baseline oil and gas activity projections, BLM's use of input-output models to estimate employment, labor income, and gross regional economic output significantly overstates socio-economic impacts. While commonly used by government and industry, input-output models are well known to greatly overestimate employment and labor income impacts related to changes in resource extraction.280Using input-output models that rely on assumed economic multipliers significantly overestimate impacts because they fail to account for how markets work in reality by assuming fixed prices and no substitution between factor inputs, often resulting in misleading and biased claims. | Appendix N discusses the methodology for the economic impact calculations. The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous | #13899-108 | BLM should not depart from the fluid mineral closures in Alternative B based on the flawed socio-economic analysis in the draft RMP and EIS. | Appendix N discusses the methodology for the economic impact calculations. The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives |

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| materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13899-75 | The draft EIS's socioeconomic analysis reflects the lack of existing or prospective oil shale development in the planning area: it does not even mention oil shale[...] when discussing socioeconomic impacts of different alternatives192 Thus, the draft EIS indicates that Alternative B's closure of 2.1 million acres to oil shale will not result in adverse socioeconomic impacts. That closure should be adopted. | See discussion in 3.15 about oil shale |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13900-2 | The 2021 Wyoming ORV Report estimates that OHV recreation alone contributes over $365 million per year to Wyoming's economy. Over 10% of all Wyoming Resident trips occurred within the southwestern Wyoming area which includes a significant portion of the Rock Springs Field Office. Limiting recreation opportunities, motorized and other, will have long-lasting, negative economic effects on these areas and communities. | The importance of OHV is provided in 3.18.1 and the higher spending profile of OHV is discussed in N.2.5; Economic impacts from alternatives is in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13912-1 | As the major private surface and mineral estate owner within the checkerboard in the Rock Springs Field Office management area and Known Sodium Leasing Area ("KSLA"), BLM's proposed restrictions will interfere with and potentially foreclose Sweetwater Royalties' efforts to develop new trona mines, renewable energy projects, carbon capture and sequestration projects, infrastructure, and other projects such as lithium mining on its private lands in the RMP checkerboard area and in adjacent field office areas. At a minimum, it will close off Sweetwater's ability to access large parts of its land and mineral estates. Specific comments on, and objections to, the Draft RMP and EIS for the Rock Springs Field Office area are below, but suffice it to say that if BLM implements the aspects of its Preferred Alternative B that are in the checkerboard, Sweetwater Royalties stands to lose hundreds of millions to billions of dollars in land value and lost revenues from both projects already under development and future development projects in the Rock Springs Field Office and adjacent field office areas. | Economic impacts are disclosed in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13912-4 | The Draft EIS fails to analyze and address the negative effects, including socioeconomic, that the imposition of new Rights-of-Way restrictions within the Rock Springs Field Office checkerboard area would have on private and public lands in neighboring areas, Southwestern Wyoming and Wyoming as a whole. An EIS must analyze all impacts, direct and indirect, caused by an action, and the measurement area cannot be limited to an arbitrarily determined 'field office' boundary line. The full effects of any action taken along or within the RSFO boundary lines, must be analyzed in the EIS. BLM cannot ignore, fail to investigate, or decline to address these issues because they are across an artificial boundary line. The EIS made no investigations, analyses, or conclusions of the various alternatives and their broader socioeconomic impacts. | Economic impacts including indirect impacts are discussed in Section 4.19 and 4.22. Appendix N described the selection of scope of analysis |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13912-5 | The Draft EIS fails to analyze and address the negative effects that the imposition of new ACECs within the Rock Springs Field Office checkerboard area will have on the access to, and the economic development and or use of, private lands within, and affected by, the checkerboard pattern of the ACECs. | Economic impacts including indirect impacts are discussed in Section 4.19 and 4.22. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13940-1 | The BLM then incorrectly assumes that the "quantified impacts of livestock grazing . . . and recreation are the same under Alternative B as Alternative A" when it recognizes elsewhere that adverse impacts to grazing will occur. Compare id. at 4-178 - 4-179 with id. at 4-259. This statement fails to recognize the impact ACEC designations, ROW exclusion areas, and other specific management actions will have on grazing operations and their potential to prevent grazing all together. | Appendix N, Estimation of Forage Utilization describes that BLM conducted an economic analysis on two different AUM scenarios, with the historical billed AUMs resulting in no difference among management alternatives. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13953-11 | Nevertheless, Alternative B poses a drastic shift from the existing productive harmony between man and his environment. While Alternative B backs away from stating it is a complete closure to fluid mineral leasing, it all but closes an overwhelming portion of the RMP area by overlapping the withdrawal of future leasing with development restrictions like no surface occupancy and excluding right of way (ROW) access for 2.5 million acres. These overlapping restrictions have created a substantial void in the economic analysis, as the BLM failed to analyze the economic impacts that will result from ROW closures on oil and gas revenue. | Please see Glossary for a definition of 'withdrawal', which does not apply to fluid mineral leasing. Indirect impacts are disclosed in 4.19 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13953-12 | In Wyoming, oil and gas wells are only allowed to vent or flare in very limited circumstances. Consequently, without pipeline access to well sites, development is impossible. This reality will substantially reduce the economic output of oil and gas inside the RMP area that are isolated by ROW restrictions. Additionally, BLM ROW restrictions do not only impact federal leases, but private and state lands as well. This is primarily because federal surface and mineral ownership is dispersed with private and state ownership throughout the RMP area. Therefore, restricting ROW access across federal lands has an additional consequence to other lands that the BLM did not analyze. | Importance of right of ways to oil and gas development are disclosed in Section 3.20.6 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13953-13 | The Draft RMP is nonchalant in its description of the socioeconomic impacts associated with the preferred alternative's restrictions, stating "it is possible that the low levels of oil and gas development under Alternative B could have negative community impacts." When evaluating the preferred alternative's reduction in economic output for oil and gas development in Table N-7 and the labor earnings in Table N-9, it is clear that the negative community impacts are not possible, but certain. The Draft RMP states that Alternative B would reduce oil and gas revenue by nearly 74%. That revenue, in large part, is used by local governments to fund essential services throughout Wyoming. The WCCA requests the BLM thoughtfully read Sweetwater County's comments regarding the anticipated impacts on local government operations from the reduction in revenue expected from the Draft RMP. | Section 4.22 discloses the predicted economic impacts of the alternatives and the ripple effects on the community |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13953-18 | While the WCCA can appreciate the BLM's authority in designating ACECs the substantial acreage proposed would triple the acreage designated as ACECs and would pose a substantial economic burden on the people and industry in the Rock Spring RMP area. Without belaboring the point, the socioeconomic impact analysis present in the Draft RMP is lacking a comprehensive view of overlapping restrictions. It is therefore highly likely that the impacts to our communities will be substantially more severe than described. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics | #13955-1 | According to the most recent report from the 2022 Bureau of Economic Analysis Report on Outdoor Recreation, "Wyoming outdoor recreation employment increased from 15,285 to 16,202 jobs, accounting for 5.6% of the state's total employment." Wyoming's outdoor recreation economy increased to $2.02 billion according to the U.S. Department of Commerce's Bureau of Economic Analysis. According to the Bureau of Economic Analysis, in 2022 | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. See Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | Wyoming's top three industries are oil and gas at $8.99 billion, $2.5 billion for travel and tourism, $1.12 billion for agriculture, and $5.7 Billion in labor income for oil and gas1 The data also shows that $1.712 billion in Wyoming is generated from agriculture and a total of 58,780 jobs for oil and gas. Oil and gas is also the leading industry in Wyoming producing $2.72 billion. The ACEC designations and Alternatives B and D would greatly hinder the economic opportunities throughout the state. Recreation alone is nationally a trillion dollar a year industry and any alternative other than Alternative C would deprive Wyoming from capitalizing on this growing industry. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-10 | We have already seen an increase in closing dispersed camping across public lands across the nation. The desire and need for outdoor recreation has grown tremendously the past few years with no end in sight. The BLM should recognize the value that connecting with nature through dispersed camping and recreation brings. Restricting this form of recreation and limiting areas of use will only increase impact. We recommend adopting dispersed camping standards within this plan to require public input for any dispersed camping closures. Allowing dispersed camping should also be seen as a management tool for offsetting the socioeconomic inequities that are taking root as ultra-wealthy residents displace lower- and middle-income individuals and families from accessing monument areas. Many areas that are proposed for camping restrictions are used by visitors, locals and businesses such as guides and ranchers. Youth and educational groups also benefit from dispersed camping throughout the entire monument. Prohibiting wood gathering would negatively impact dispersed camping opportunities. There is a culture of camping and survival that needs to be protected through this management plan. | Socioeconomic impacts are disclosed in Section 4.2. See also Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-2 | According to the most recent report from the 2022 Bureau of Economic Analysis Report on Outdoor Recreation, "Wyoming outdoor recreation employment increased from 15,285 to 16,202 jobs, accounting for 5.6% of the state's total employment." Wyoming's outdoor recreation economy increased to $2.02 billion according to the U.S. Department of Commerce's Bureau of Economic Analysis. According to the Bureau of Economic Analysis, in 2022 Wyoming's top three industries are oil and gas at $8.99 billion, $2.5 billion for travel and tourism, $1.12 billion for agriculture, and $5.7 Billion in labor income for oil and gas1 The data also shows that $1.712 billion in Wyoming is generated from agriculture and a total of 58,780 jobs for oil and gas. Oil and gas is also the leading industry in Wyoming producing $2.72 billion. The ACEC designations and Alternatives B and D would greatly hinder the economic opportunities throughout the state. Recreation alone is nationally a trillion dollar a year industry and any alternative other than Alternative C would deprive Wyoming from capitalizing on this growing industry. | See DEIS Executive Summary Introduction paragraph 5 for validation of data age based on equal baseline. See Chapter 4.22 for a breakdown of socioeconomic impact analyzed by alternative. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-3 | Historically, there has been no group more greatly marginalized and excluded by public land management policies, and motorized travel management policies in particular, than people with disabilities. Outdoor enthusiasts with ambulatory disabilities frequently rely on motorized travel as their sole means to enjoy recreating on public lands. Not everyone has the ability to hike into a remote wilderness area, but many such people are still able to drive Jeeps, side-by-sides, and ATVs, which are restricted to the designated motorized route network. Management policies focused on "minimizing" the environmental impacts of motorized recreation have resulted in a dramatic decrease in motorized recreation opportunities on public lands over the last 20 years, which has disproportionately impacted people with disabilities. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. Accessibility equipment that is credibly assured to be in use in assisting a disability does not fall under the definition of 'OHV'. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-4 | The Biden Administration's focus on equity, however, changes the equation. While the ADA focuses only on equality of opportunity, equity inherently focuses on equality of outcome. Any policy that is facially neutral but disproportionately harms a disadvantaged or marginalized group is considered inequitable. The BLM is therefore required by this executive order and others mandating that federal agencies consider "environmental justice" in NEPA proceedings to consider whether any route closures in the Rock Springs Resource Management Plan would disproportionately harm disabled users' ability to access public lands. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. Accessibility equipment that is credibly assured to be in use in assisting a disability does not fall under the definition of 'OHV'. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; | #13955-5 | It should also be acknowledged that it is also entirely possible that many of the tribal members who wish to access sacred and cultural sites within the planning area currently or will at some point suffer from mobility impairment disabilities. Since the elimination of motorized access from the planning area would prevent disabled tribal members from accessing sacred and cultural sites, motorized restrictions would likely be contrary to EO 13007, EO 13985, and the American Indian Religious Freedom Act. | As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. Accessibility equipment that is credibly assured to be in use in assisting a disability does not fall under the definition of 'OHV'. |

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| abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-6 | Balancing conservation goals with cultural significance is crucial for the sustainable management of these areas. Managed motorized access can facilitate educational programs, allowing visitors to learn about the significance of the area and the importance of conservation efforts. This educational aspect can foster a deeper understanding and appreciation for the environment, potentially leading to more responsible behaviors among visitors. "ACEC can also provide tangible benefits, such as tourism dollars, for local communities."2 BLM should analyze how many tourism dollars are brought in due to the existing motorized routes that are being proposed for non-motorized trails. | Importance of OHV is discussed in 3.18.1 and Appendix N discussion the economic impact methodology |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-7 | The Executive Order on Advancing Equity also recognizes that poverty and inequality can lead to systematic discrimination against historically underserved and marginalized communities. We strongly encourage the BLM to incorporate into their planning the findings of The Slums of Aspen: Immigrants vs. the Environment in America's Eden by Lisa Sun-Hee Park and David Pellow and Billionaire Wilderness: The Ultra-Wealthy and the Remaking of the American West by Justin Farrell. Both of these works document extensively how Western communities surrounded by public land are undergoing significant socioeconomic changes that result in skyrocketing housing costs, use of conservation and land-use restrictions to limit development, and displacement of the local middle and lower classes from Western Communities. | The societal impacts, including systematic discrimination, of poverty and inequity are outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13955-8 | First, conservation has directly and indirectly intensified wealth inequality by making the area uniquely attractive to the ultra-wealthy, creating intense housing demand and land scarcity that has dramatically reshaped who lives in the community, and how people make their money. [...] As more and more ultra-wealthy people move to the area for natural amenities (for example, protected lands, abundant wildlife), it dramatically restructured the socioeconomic hierarchy - becoming both a cause, and a consequence, of conservation values. Conservation became a form of elite cultural currency, and conservation organizations benefited from the financial flow down, all while it became harder for middle- and lower-income people to survive there (pp. 96-97). | Wealth inequality and socioeconomic hierarchy of societies is outside the scope of this RMP analysis. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #13974-5 | Emphasizing conservation and pristine experiences may limit the type of visitor able to enjoy public lands. Several places in Volume I mention the value of"pristine" experiences, with Alternative B's conservation focus offering the most of those opportunities. However, the ability to access such pristine areas may be limited by socioeconomic factors and physical limitations. Individuals with different abilities may not be able to access resources because of a lack of formal development or ADA accessibility. It is therefore important to consider roads and other access routes to key areas in this plan which provide a diverse representation of natural, cultural, and historically significant areas within the Field Office, ideally with varying levels of solitude and disturbance. | Recreation impacts are discussed in sect. 4.17. Route specific Travel and Transportation Management decisions are outside of the scope of this DEIS. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #14022-14 | Creating a Big Game ACEC doesn't make economical sense. With the State of Wyoming managing the State's wildlife SCCD feels that BLM should deal with the ACEC process in a different planning effort. | See Appendix C and Chapter 3.22 for a description of ACEC designations and the nomination criteria. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #14026-6 | Adding unnecessary complexity, cost, and mandates on electricity infrastructure may chill investment in grid hardening and expansion, at a time of high wildfire risk and increased electrification of the nation. NRECA urges BLM to refrain from imposing any such requirements on electrical infrastructure in the final RMP/EIS. | Impacts to right of ways for electricity infrastructure are disclosed in Section 4.19 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #14032-11 | 3 The EPA notes that BLM did not appear to utilize an initial analysis of environmental factors on these communities as provided through EPA's EJScreen tool when developing the Draft EIS.14 The EPA's nationally consistent EJ screening and mapping tool is a useful first step in highlighting locations that may be candidates for further analysis. The tool can help identify potential community vulnerabilities by calculating EJ Indexes and displaying other environmental and socioeconomic information in color-coded maps and standard data reports (e.g., pollution sources, health disparities, critical service gaps, climate change data). EJScreen can also help focus EJ outreach efforts in the planning area by identifying potential language barriers, meeting locations, Tribal lands and indigenous areas, and lack of broadband access and allow BLM to meet the intended goals of this new and other executive orders aimed at the protection of overburdened, minority, and low-income communities potentially at risk from BLM decisions in the planning area. | BLM followed its BLM EJ guidance as discussed in the Socioeconomic Baseline Report |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #14032-12 | EPA strongly encourages BLM to address EJ in the Final RMP/EIS by including desired outcomes (goals and objectives) and related management direction(s) that would be applied to land management decisions in the planning area over the planning timeframe. EJ goals and/or objectives could be focused on avoiding disproportionate impacts to communities with EJ concerns by managing community risks to health (e.g., from air emissions and climate change) and potential conflicts with resource access or use (e.g., rights guaranteed to Tribes through existing treaties with the federal government) arising from BLM-approved land use activities. To ensure that BLM-administered lands are managed in such ways that disproportionate impacts to overburdened and underrepresented communities (such as subsistence economies) in the planning area are avoided or minimized, a management direction could include meaningful outreach, education, and early and consistent coordination and collaboration with Tribes, community members and groups, local government organizations, academic institutions, not-for-profit organizations, and other stakeholders in the planning area. Such meaningful engagement is important to identifying and addressing community- specific concerns, environmental risks, and disproportionate risks to human health. | BLM followed its BLM EJ guidance as discussed in the Socioeconomic Baseline Report |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #14032-13 | we recommend considering a management direction related to consideration of mitigation of disproportionate and adverse effects to Tribes and other communities with EJ concerns during early stages of project planning and design. Inclusion of goals, objectives, and management directions in Table 2-1 in Final RMP/EIS specific to EJ impacts (as with other resources considered in the Draft RMP/EIS) associated with BLM land use decisions in the planning area would make BLM RSFO's management activities more consistent with EOs 12898, 13985, and 14096, as well as the CEQ's EJ Guidance under NEPA. | Project level decisions are implementation actions and are beyond the scope of this land use planning EIS. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #14038-3 | In April 2022 the Department of Interior released it's Equity Action Plan which addresses the lack of access on public lands. In order to advance equity of access on public land for those with mobility impairment disabilities, it is important to recognize that discrimination towards Americans with disabilities within federal land management agencies is deeply rooted and hidden in plain sight. Recreation, primarily motorized recreation, has taken a backseat to conservation and protection. Motorized recreation is often the only way those with mobility impairment disabilities are able to access public lands. BLM should ensure that the plan complies with the Department of Interior's Equity Action Plan, which recognizes that restrictions on motorized access to public land create barriers of access to those with disabilities. | Recreation impacts are discussed in sect. 4.17. See Glossary for a definition of OHV as described in the management actions. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #188-1 | in inflation is out of control and now inflicting more on us. Please take a hard look at this the blm is trying to do to us. We. The People won't be able to survive. With fuel costs. Electricity…please reconsider all these actions the blm is wanting to take | An analysis of US and global inflation is outside the scope of this RMP. Please see Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #229-1 | plan b will fundamentally change the way of life in a signicant portion of WY. it will increase beef prices, | An analysis of beef prices is outside the scope of the analysis. Quality of life is discussed in the social impacts section of each alternatives analysis. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #257-1 | At a time when citizens around our nation are experiencing some of the highest food prices ever seen in our lifetime, the BLM is proposing to drastically reduce the amount of AUMs in many allotments, or in some cases even revoke grazing leases altogether. How does a reduction in the amount of AU Ms in these allotments have an effect on the price of food? This reduction in grazing utilization will put many ranchers out of business; therefore, there will be less cattle to bring to market for public consumption. We are already at historically low cattle inventory in 2023. We have not seen inventory this low in the United States in over 60 years. In a market that is driven by the amount of cattle in the United States, low inventory means less cattle in the market and higher prices for the consumer. Like I said, at a time when U.S. citizens are battling not only significantly higher food prices, but also rising inflation and higher costs in every facet of their lives, the BLM is proposing to reduce grazing utilization, which in turn would put many ranchers out of business, and consequently cause food prices to climb even higher. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #257-3 | Finally, and perhaps the most frightening thing about the potential reduction in BLM grazing, is the effect that it will have on the ranchers that have been in these areas for well over a century. Many ranchers in these small Wyoming communities will go out of business and will perish. This is a horrible proposition for not only these small town communities that depend on these ranchers to bring dollars into their economies, but it is also a terrible proposition for the country as a whole. It would be a shame to lose some of these ranches that started these small town communities in which we call home. | Section 4.22 discloses the predicted economic impact of the alternatives and connected social impacts to the community |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #298-1 | Our state is already facing deficits. Our schools, roads, and health care depend on the royalties of the minerals that our state produces. Without those, we have lost millions of dollars of funding for Sweetwater County. Our school district in 2021 faced challenges of closing schools, and letting teachers go because of the lack of funding. Wyoming's mineral royalties give schools, roads, and health care over $729 million dollars to the budget each year (Wyoming Government Revenue Forecast 2023-2028). How is Wyoming going to supplement that income?? | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics | #298-3 | You are closing many areas of recreation off, which in turn kills our tourism. In 2021 tourism in Sweetwater County brought in over 160.6 million dollars, which brought in 10.1 million dollars in taxes (TourWyoming.com, 2021). Let's take half of that away as well 5.05 million dollars. | Section 4.17 discussion changes in recreational tourism while Section 4.22 discusses related economic impacts under the various alternatives |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #305-2 | Does the BLM consider the full economical impact to the US economy? If yes, what was the estimated economy impact? How the economical impact is considered in the decision making process in the proposed RMP? | A national economic analysis is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. Also, see Appendix N for the methodologies selected as appropriate. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #342-1 | Restricting access for development and recreation on federal land, as provided in the Draft RMP, will have drastic consequences for development and recreation on neighboring state and fee parcels. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #342-3 | However, the BLM's preferred proposed plan threatens small businesses throughout the state by forwarding an alternative that severely limits public access for mineral resource development, grazing, and recreation in greater southwestern Wyoming. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #345-2 | Without the critical tax revenue derived from the mineral industry in Niobrara County along with all of the participating counties in southwest Wyoming, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety and security. Funding derived from mineral exploration and development, grazing, agriculture, recreation and tourism constitutes a significant portion of revenue used to pay for essential services, Including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Niobrara County, but all counties, the State of Wyoming and its residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. | See Chapter 1 for a description of the planning area, which does not include Niobrara County. Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted within the planning area. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; | #348-1 | Without the critical tax revenue derived from the mineral industry in Weston County along with all of the participating counties in southwest Wyoming, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety and security. Funding derived from mineral exploration and development, grazing, agriculture, recreation and tourism constitutes a significant portion of revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Weston County, but all counties, the State of Wyoming and its | See Chapter 1 for a description of the planning area, which does not include Weston County. Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted within the planning area. |

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| abandoned mine lands) (8000- 8012) | | residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #353-1 | here is one obvious flaw in the EIS: The stated socioeconomic resource goals are to: Provide sustainable economic development opportunities for a diversity of multiple-use resources including energy, mineral extraction, grazing, agriculture, and recreation, including sightseeing, hunting, fishing, tourism, hiking and others. • Provide resources and necessary access, consistent with multiple and sustainable use, for economic, cultural, and social viability at the national, regional and local levels. • Recognize the importance of mineral and oil and gas extraction as an important component to sustaining the economy of the region. • Consider local and regional economic development and land use plans in BLM decision making. Provide opportunities for economic and social sustainability at the national, regional, and local level. • Consider the impact of BLM management actions on community health, safety, welfare, infrastructure, services, housing, employment, custom, and culture. Yet absolutely none of the action items for any of the alternatives addresses any of these goals. This is a colossal failure to fulfill the purpose of this study. | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #363-1 | Without the critical tax revenue derived from the mineral industry in Crook County along with all of the participating counties in southwest Wyoming, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety and security. Funding derived from mineral exploration and development, grazing, agriculture, recreation, and tourism constitutes a significant portion of revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Crook County, but all counties, the State of Wyoming and its residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. | See Chapter 1 for a description of the planning area, which does not include Crook County. Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted within the planning area. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #400-1 | Without the critical tax revenue derived from the mineral industry in Converse County along with all of the participating counties in southwest Wyoming, there would be insufficient funds to provide basic services at a level needed for the protection of the county residents' health, safety and security. Funding derived from mineral exploration and development, grazing, agriculture, recreation and tourism constitutes a significant portion of revenue used to pay for essential services, including roads, fire protection, courthouses and judicial systems, libraries, landfills, hospitals, law enforcement, airports, recreation, public health, and senior citizen centers. Any curtailment of leasing and development activity significantly impacts the socio-economics of the communities and eliminates a critical funding stream for not just Converse County, but all counties, the State of Wyoming and its residents, which will cause reductions to budgets for human services, education, infrastructure and law enforcement. | See Chapter 1 for a description of the planning area, which does not include Converse County. Section 4.22 discloses the predicted economic impact of the alternatives including that public services could be impacted within the planning area. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #527-1 | he ACEC designation will effectively prohibit energy development, and primarily development of the mineral estate, on over 50% of the resource management area. This prohibition will negatively impact the State of Wyoming through loss of the State's portion of federal mineral royalties as well as increasing our nation's dependence on foreign or unreliable and unproven energy sources. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #544-1 | This plan also has the potential to affect my income. As an insurance professional I have clients in the agricultural industry, outdoor recreation industry (outfitters), and energy industry. • I have agricultural clients that run cattle within the management area. I am an associate member of the Wyoming Stock Growers Association, a group which has expressed considerable concern over this plan. If the WSGA is concerned, I am also concerned. If my clients' operations and subsequent income are affected, potential downsizing would have a direct effect on insurance premiums and my compensation. • I have outfitter clients that guide hunters within the management area. If they are forced to downsize it would have a direct effect on insurance premiums and my compensation. • My energy industry clients are not typically working in the proposed area. However, the energy industry has a tendency to "lift all ships" so a strong energy sector is preferred. Anything that would be deleterious to Wyoming's energy industry can have a direct impact on my compensation. | Section 4.22 discloses the predicted economic impact of the alternatives including ripple effects to those not directly employed in ag, rec and energy. |

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| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #550-2 | Public lands are one of the most vital resources to businesses in the State. Almost half of the land in Wyoming (48%) is under federal ownership and management. And in the Rock Springs Field Office management area, the number is much higher, with about 3.9 million acres of land subject to federal control in an area covering 5.7 million acres (or about 83%). Activities on these public lands are indispensable economic drivers for the region, including grazing by Wyoming ranchers; off-highway vehicle, hunting, and other recreational uses that support the tourism and guided industry; trona and coal mining; oil and gas development; solar and wind energy projects; and critical infrastructure. Decisions about how to manage these federal lands have enormous consequences on the local, regional, and State economy. Indeed, the BLM acknowledges the strong socioeconomic linkage between the federally managed lands and the communities in the socioeconomic study area, such as Rock Springs, Green River, and Pinedale. | See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #550-3 | Overall, the BLM's proposed Alternative B would severely harm southwestern Wyoming. Total economic output just from the oil and gas industry would drop to less than a third of current levels, and industry jobs would drop from approximately 4,000 to about 1,000. Local governments and the State would see substantial declines in tax and royalty income. Supporting midstream and service companies will be adversely impacted in turn. In short, Alternative B fails to balance multiple uses and would instead put at risk hundreds of businesses and thousands of jobs in southwestern Wyoming. | Section 4.22 discloses the predicted economic impact of the alternatives including ripple effects |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #550-4 | If implemented, Alternative B would have dramatic consequences for businesses in southwestern Wyoming, particularly those supporting oil and gas exploration and production and infrastructure development. Of the 3.7 million acres of mineral estate, currently only about 540,000 acres are closed to oil and gas leasing and 159,000 acres are subject to no surface occupancy stipulation. Alternative B would close almost 2.2 million acres to leasing. Of the remaining 1.5 million acres in the management area, over 800,000 would be subject to no surface occupancy stipulations. In other words, areas open to leasing under standard terms and conditions would decrease from about 3 million acres under current management to about 700,000 acres under Alternative B. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #550-8 | Access for OHV users supports local tourism and limitations may push OHV users to Utah, Colorado, and other lands with fewer restrictions. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #8761-3 | The U.S. Bureau of Economic Analysis showed that in 2021 the outdoor recreation industry brought in $821 billion nationwide. By limiting access to the monument or decommissioning trails the BLM could be harming the local economy and robbing them of potential income. | See Chapter 1 for a description of the planning area, which does not include any National Monuments. Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics | #9448-1 | The county's annual total oil and gas tax revenues could shrink from $16.9 million to $4.3 million, he said. Revenue for local school districts could shrink from $8.5 million to about $2. 9 million, and the county government's share is estimated to drop from $2. 9 million to $736,000. | Section 4.22 discloses the predicted economic impact of the alternatives |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9545-1 | A conservation-focused management plan, such as the preferred alternative, should lead to more jobs over the long-term not less. I am an avid member of the non-motorized outdoors recreation crowd (biking, hiking, hunting, fishing, you name it and I do it) and the Red Desert is getting more and more press as an amazing place to visit. I do not doubt that if it is left unspoiled it will become a greater tourist draw over time. Thus, preserving the land represents a greater investment in our state's future, as compared to the short-term gains obtained through energy development. Nobody travels across the country to do a bike tour of an area filled with gas wells, but a lot of folks travel to see novel geological features, abundant wildlife and flora, and ancient rock art. | Section 4.22 discloses the predicted economic impact of the alternatives |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9792-12 | The DEIS's socioeconomic and cumulative impact analyses are deficient. The socioeconomic baseline report was prepared a decade ago and is not reflective of the current situation in the region. The economic boom and population growth that were reflected during the baseline are not the current conditions in the region. | The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Section 4.22 discloses the predicted economic impact of the alternatives. The cumulative impact analysis can be found in Appendix T. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9792-13 | We are especially concerned about the lack of comprehensive and fair treatment of the impacts to livestock grazing. We request that the EIS be revised to incorporate the assessment methodology and practices as described by: Brymer, Amanda L. Bentley, et al. "Economic and social impact assessment of ranching on public lands: A guide to concepts, methods, and applications." Journal of Rangeland Applications 4 (2018). {See Attachment A to this letter.} As noted in Brymer, et al, "A problem with the average AUM scenario is that federal grazing is not typically used in isolation but rather as part of an individual ranch's overall grazing operation. If a ranch is seasonally dependent on federal grazing, as is the case for many western ranches in northern climates, a reduction in federal AUMs can create forage imbalances that produce greater reductions in grazing capacities than just the change in federal AUMs. This suggests that a production scenario based on the changes in the overall ranch production results from a change in federal grazing policy and would be an appropriate scenario to consider in the economic impact analysis." Bremer, et al, also point to the need to provide an overview of resource amenities, the need to account for the social impacts of projects and policies to rural communities, and understanding the social context, of policy shifts in federal land management decisions. | Similar discussion to Brymer et al is captured in the nonmarket value discussion in Section 4.22 |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9792-14 | The DEIS proposes major shifts in livestock grazing management policies, but only assesses the economic impact of the direct loss of AUMs from areas where grazing will be excluded. That is a deficient assessment. The document needs revised to reflect both relevant literature on public land grazing permits, and to include an allotment-specific assessment of not just the change in AUMs but in the economic cost of the policy shifts under each alternative. We request the BLM use the Pinedale Field Office Greater Sage-Grouse/Grazing Economic Analysis 2012 as the model for such an analysis. {See Attachment G to this letter.} and Tanaka, J. A., Rimbey, N. R., Torell, L.A., Bailey, D., DelCurto, T., Walburger, K., & Welling, B. (2007), Grazing distribution: the quest for the silver bullet. Rangelands, 29(4), 38-46, which found: "{I}n terms of profit, total elimination of the permit causes about the same level of lost profits (-$11,526) as does losing the early summer grazing season (-$11,005) even though the herd size impacts are markedly different." In addition, H2-A foreign workers rely on sheepherding jobs in America and are not reflected in socio-economic section. The analysis doesn't weigh the recent Department of Labor-mandated increase in pay to H2-A workers which has substantially impacted the economic sustainability of livestock producers in the RSFO. | Analysis regarding H-2A workers and Dept of Labor requirements are outside the scope of this RMP. See Section 1.4 for Planning Criteria. Appendix N discusses the methodology selected. |
| 837 - Socioeconomic Resources–Economics | #9792-2 | The DEIS fails to provide a description of the amount of food produced from these public lands, an examination of the customs and culture of ranching in the area, ranching as a historic and continued use of the district, and the local dependence on resources from public lands. | Appendix N discusses the methodology for estimating the economic value of forage use; social impacts are discussed in Section 4.22 |

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| and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | | | |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9792-7 | The DEIS fails to provide an adequate assessment of the economic viability of the alternatives on livestock production (the production of food and fiber), and impacts management changes could provide if sustainable livestock production is undermined by the BLM's management actions, including the reduction in the ability for producers to utilize their allotments due to the various restrictions imposed under each alternative. | Appendix N discusses the methodology to determine economic impacts and Section 4.22 discloses the predicted economics impacts |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9792-8 | The DEIS fails to examine how livestock production within the RSFO is linked to private lands, state lands, US Forest Service lands and seasonal production of vegetative resources on all these lands as well in adjacent areas outside the field office area. The socioeconomic impact specifically did not include this larger view that would provide information about the total impact of the BLM plan. Since livestock production on these lands are linked, livestock grazing management in the area involves the seasonal movement of livestock by ranches inside and outside the RSFO, with impacts within Wyoming as well as in neighboring areas of Idaho, Utah, and Colorado. This seasonal movement, called transhumance, is an important and internationally recognized practice of sustainable agriculture - providing for sustainable food and fiber production. | An analysis of regional livestock grazing is outside the scope of this RMP. See Section 1.4 for the Planning Criteria. |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9793-1 | This is a huge deficiency in the DEIS. Of the nine actions under socioeconomics, all deal with hazardous substances, waste or abandoned mines. {See DEIS page 2-213.} There are no action items for sustainable economic development. There are no action items for social sustainability. There are no action items for "economic, cultural and social viability." | See discuss in Chapter 1 about planning criteria and Chapter 2 alternatives development |
| 837 - Socioeconomic Resources–Economics and Public Safety (hazardous materials; abandoned mine lands) (8000- 8012) | #9846-1 | Page 2 of my comments, that didn't appear in the first on....With all that said and done, there are no action items listed to meet sustainability goals. Of the nine actions under socioeconomics, all deal with protecting the public from hazardous substances, waste or mines that are abandoned. No action items for sustainable economic development. No action items for social sustainability. No action items for “economic, cultural and social viability.” Page 2-213 of the draft. | See Section 1.4 for the Planning Criteria for this RMP. Chapter 2 includes a description and details for the alternatives development. |
| 838 - General-NEPA Compliance | #37-2 | However, despite my strong support for Alternative B, I do not believe that it represents a meaningful enough difference among the other action alternatives on at least three crucial subjects: commercial livestock grazing, fossil fuel development, and transportation planning. On these subjects, the action alternatives appear to be highly similar. It would have been better and fairer for this NEPA analysis and public involvement if Alternative B recommended a meaningful reduction in commercial livestock grazing pressure on natural resources, much less area available for potential fossil fuel leasing and development, and much more area closed to future OHV recreation. All three of these subjects are directly relevant and contribute to both the climate and extinction crises. For example, please review the attachment on the climate change related impacts from commercial livestock | The range of alternatives is sufficient. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See also Appendix E for a summary of all laws and regulations that guided the DEIS. |

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| | | grazing on public lands. I am disappointed that BLM's preferred alternative, that professes to be the most conservation oriented, was improperly skewed to largely favor the status quo on these three subjects. If implemented, these deficiencies would undermine the potential benefits from other components of Alternative B. I urge BLM to strengthen Alternative B with respect to these subjects in preparing the proposed RMP and final EIS. | |
| 838 - General-NEPA Compliance | #223-1 | the RMP did not consider the Sweetwater County Land Resource Use Plan and Policy as required by Federal law. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 "The interdisciplinary team reviewed county land use plans to ensure consistency" (pg. 5-3). |
| 838 - General-NEPA Compliance | #244-1 | It is our considered opinion that the Bureau of Land Management should withdraw this draft, reconsider the alternatives making use of the considerable stakeholder and public comment over a number of years, and issue a fully supported and considered preferred alternative. It is Wyoming's intent to make sure that this RMP stands up to careful public and legal scrutiny. Issuing a thought through draft preferred alternative rather than "building the plane as we try to fly it" may actually result in something that could fly. What is before us to consider will not. As this draft stands it will lack Wyoming's support, local community support, and will surely be challenged on rigor. | See section 2.2.3 regarding Alternatives Development Process and Chapter 5 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #244-2 | More to the point, this draft does not accurately reflect the 12-year cooperative process undertaken during my entire time in office as Governor and as State Treasurer, three presidential administrations, a multitude of public meetings, cooperating agency input, technological and scientific advancements, and millions of taxpayer dollars. So, it is completely incomprehensible that the BLM selected for its Agency Preferred Alternative, Alternative B, one considered an outlier in previous attempts at issuing an RMP one that was meant to serve initially as a bookend - an alternative with the most resource use restrictions and concomitantly with the largest socioeconomic impacts. Over a decade's worth of contributions from local stakeholders, cooperators, counties, and state agencies are either falling on deaf ears or disingenuously being thrown by the wayside with this decision. | See Section 5.1 regarding public involvement and government consultation and coordination in developing all alternatives. See Executive Summary Introduction (page ES-1) and Section 3 regarding the sufficiency of AMS summary and baseline data. |
| 838 - General-NEPA Compliance | #244-3 | The BLM's RMP and Preferred Alternative threaten to eliminate all the hard work accomplished by bulldozing over state executive orders, stakeholder engagement, and interagency agreements. Simply put, existing and future partnerships are in jeopardy. A federal fiat won't run efficiently or well over such a bumpy road. | See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #244-4 | I request that this hastily constructed hamfisted draft, as written and including the insincere and impractical choice of Alternative B as the Agency's Preferred Alternative, be completely withdrawn and resubmitted to the public with a newly crafted Preferred Alternative using the years of work by the local field office and cooperators. A realistic and constructive conversation and public input process can occur with a pragmatic Alternative. | See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #250-1 | The National Environmental Policy Act states that local land use plans from the counties in effect area must be evaluated and a statement of identifying why the alternative is inconsistent with the current land use plans of the county and why it cannot be implemented must be made for all alternatives. This is not available in the RMP. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 "The interdisciplinary team reviewed county land use plans to ensure consistency" (pg. 5-3). See Section 2.2.3 regarding BLM compliance with NEPA and CEQ compliance in developing alternatives for the DEIS, including seeking public input and analyzing reasonable alternatives. |
| 838 - General-NEPA Compliance | #297-1 | Your work product was largely free of footnotes. A quick survey of the bio indicates that you predominantly relied on USGS,BLM, and EPA publications to the exclusion of any data or analysis that might have contrary views. | See Literature Cited section of the DEIS for a list of sources referenced in the document. |
| 838 - General-NEPA Compliance | #305-3 | Does the BLM consider working with the State and Industries on alternatives for the greater good? By greater good I mean, preserve the environment and at the same time prevent negative impact of the communities prosperity and people well being. | See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #315-2 | There has been minimal public participation as one three-hour "open house" in 140 months is not broad-based public participation. | See Table 5-1 for a list of public involvement events and section 5.2 for details of public participation in the RMP process. |
| 838 - General-NEPA Compliance | #315-3 | As presented, the preferred Alternative B does not recognize valid and existing rights. (There are many examples, but as one example, Alternative B proposes to prohibit surface occupancy within one mile of historic raptor nest locations, not just active raptor nest locations; this has the potential to suddenly close many current operations that have valid existing rights to operate where a historic nest may have existed). | The RMP will recognize valid and existing rights (see Section 1.4). See also Section 2.2.2 which states "this plan does not propose any implementation-level decisions" (pg. 2-1). |
| 838 - General-NEPA Compliance | #315-4 | The planning team has not worked cooperatively with interested groups; as an example, trona occurs on approximately 10% of the RMP area, yet there hasn't been a single cooperative meeting between the BLM and trona operators (or any other mining industry group for that matter). BLM should hold meetings with interested groups and consider their input in drafting the alternatives. | See Chapter 5 for details of public involvement, consultation, and coordination. Industry groups do not have cooperating agency status and "jurisdiction by law" but are welcome to participate as members of the public. |
| 838 - General-NEPA Compliance | #315-5 | Publication of this RMP seems to be rushed. There was no information and no public participation for years and then suddenly, the RMP and Draft EIS went to public notice. It is interesting timing considering the National Environmental Policy Act, Implementing Regulatory Revisions Phase 2 was published in the Federal Register on | The NEPA revisions would only apply if the EIS was begun after their publication. See Executive Summary: "Because the EIS was begun prior to September 14, 2020, the CEQ's 1978 NEPA regulations govern the preparation of this EIS. Any references to the CEQ's NEPA regulations at 40 CFR 1500-1508 refer to the 1978 regulations in effect prior to the 2020 update." |

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| | | July 31, 2023. This RMP and DRAFT EIS should be paused to meet and incorporate those newly proposed NEPA revisions. | |
| 838 - General-NEPA Compliance | #315-6 | The RMP is flawed at the outset, both substantively and procedurally. Most of the baseline data is at least a decade old. The BLM doesn't even include recent EIS information for mineral development. The RMP completely ignores sage grouse even though the agency is aggressively working to expand sage grouse areas and protections, many of which will directly impact the RMP area. The RMP explicitly disregards the wild horse management issue. The decision to ignore these matters is inconsistent with NEPA and the BLM planning regulations. The RMP should be paused until these important matters can be included in this RMP. | See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. Sage grouse Land Use Plans are being addressed under separate ongoing Amendments (see Sections 1.3 and 2.2.5). Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern and are subject to the 2013 Consent Decree are being addressed under a separate ongoing RMP Amendment and EIS (see Sections 1.3 and 2.2.5). See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." |
| 838 - General-NEPA Compliance | #315-7 | Given the numerous concerns with the process used to draft and submit the proposed RMP for public comment, WMA respectfully requests the following: * The BLM should withdraw the draft RMP and expand the opportunities for the public, stakeholders, and cooperating agencies to voice their concerns. * The BLM should complete its planning for sage grouse and wild horses and incorporate those matters into the RMP and Draft EIS. * The BLM should take that additional public input and incorporate it into a new recommended alternative that recognizes existing rights AND meets the objective of multiple uses and sustained yield. * Once the updated draft RMP is published, the BLM should open up a public comment period for at least 180 days. 90 days is simply not enough to digest a document of this magnitude and complexity. | See Chapter 5 for details regarding opportunities for the public, stakeholders, and cooperating agencies to voice concerns and be involved in the planning process. See Sections 1.3 and 2.2.5 regarding sage grouse and wild horses being addressed under separate ongoing processes. See also Sections 3.9 and 4.9 for "Affected Environment" and analysis of "Environmental Consequences" for Wild Horses and Burros not subject to the 2013 Consent Decree. The RMP is in compliance with FLPMA and will recognize valid and existing rights (see Section 1.4). |
| 838 - General-NEPA Compliance | #342-2 | Although billed as an "open house," Wednesday's meeting did not accept any input or comments from those most deeply affected by the proposed plan and the BLM's preferred alternative: the public. Castigating the public's input as "misinformation" and then refusing to take any input in person is not how we do things in Wyoming. In itself, this warrants a withdrawal of the Draft Plan and a restart of the process. | Public involvement has been part of the RMP process from the start. See chapter 5 for details of public involvement opportunities |
| 838 - General-NEPA Compliance | #345-3 | Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. NEPA established a Council on Environmental Quality (42 US Code[USC] 4321 t19701), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations [CFR] 1500-1508 [1970]). In these regulations is the requirement that federal agencies consider and use local planning documents during their decision making and planning efforts (40 CFR 1s06.2 [1978] and 43 CFR 1610.3-2(a) [1983]). | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 838 - General-NEPA Compliance | #345-5 | According to the Sweetwater County Federal Lands and Resource Plan dated June 7,2022 and certified through Resolution 2022-06-CC-01: "Over 73 percent of the land within Sweetwater County is owned by the United States and managed by several federal agencies, including the Bureau of Land Management (BLM), U.S. Forest Service, U.S. Fish and Wildlife Service, and the Bureau of Reclamation...Due to the County historical use of these lands and the accompanying resources, decisions made by federal land agencies directly impact County residents and the economy. With respect to "federal land management," the County continues to support "multiple-use" management practices, public land resource use and development, and improved public and private access to and across public lands. The abundance and availability of natural resources within the region provide a variety of economic development opportunities including, but not limited to, mining and mineral production, gas, oil, trona, potash, lithium, and uranium development; timber produdion; agriculture and grazing; and tourism and outdoor recreation." BLM must better align with local natural resource plans. | See updated Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2. |
| 838 - General-NEPA Compliance | #345-7 | Currently the federal agency is not in any way consistent with the local county land use plans either substantively or procedurally which violates FLPMPA and NEPA. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #345-8 | Furthermore, the County strongly urges BLM to review all of the local county natural resource plans (Fremont, Lincoln, Sweetwater, Sublette and Uinta Counties) affected by this decision and coordinate with the state and local county cooperating agencies that work, recreate and earn a livelihood in this area. Only then can the agency develop a preferred alternative that is consistent with those local plans as allowed by law and provides for a balance between conservation and protection and economic growth. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #348-3 | Currently the federal agency is not in any way consistent with the local county land use plans either substantively or procedurally which violates FLPMPA and NEPA. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #348-4 | Furthermore, the County strongly urges BLM to review all of the local county natural resource plans (Fremont, Lincoln, Sweetwater, Sublette and Uinta Counties) affected by this decision and coordinate with the state and local county cooperating agencies that work, recreate and earn a livelihood in this area. Only then can the agency develop a preferred alternative that is consistent with those local plans as allowed by law and provides for a balance between conservation and protection and economic growth. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #361-1 | The Agency needs to consider the impact of the recent change in preferred alternative from the 2020 version to the 2023 preferred alternative on the local cooperators and their stakeholders and fully consider their input in the important planning process. | Impacts of the four alternatives are analyzed in detail in Chapter 4. See section 2.2.3 regarding Alternatives Development Process and Sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| 838 - General-NEPA Compliance | #363-2 | Furthermore, the National Environmental Policy Act (NEPA) establishes a national policy and goals for the protection, maintenance, and enhancement of the environment. Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. NEPA established a Council on Environmental Quality (42 US Code [USC] 4321 [1970]), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations [CFR] 1500-1508 [1970]). In these regulations is the requirement that federal agencies consider and use local planning documents during their decision making and planning efforts (40 CFR 1506.2 (1978] and 43 CFR 1610.3-2(a) (1983]). | Refer to Appendix E for a list of all laws and regulations guiding this DEIS. See section 5.1.2 "The interdisciplinary team reviewed county land use plans to ensure consistency" (pg. 5-3), Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #363-4 | BLM must better align with local natural resource plans. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 838 - General-NEPA Compliance | #400-2 | Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. NEPA established a Council on Environmental Quality (42 US Code [USC] 4321 (19701), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations (CFR] 1500-1508 [1970]). In these regulations is the requirement that federal agencies to consider and use local planning documents during their decision making and planning efforts {40 CFR 1506.2 (1978] and 43 CFR 1610.3-2(a) [1983)). | See section 5.1.2 "The interdisciplinary team reviewed county land use plans to ensure consistency" (pg. 5-3), Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #400-3 | BLM must better align with local natural resource plans. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2. |
| 838 - General-NEPA Compliance | #400-4 | Currently the federal agency is not in any way consistent with the local county land use plans either substantively or procedurally which violates FLPMPA and NEPA. | See section 5.1.2 "The interdisciplinary team reviewed county land use plans to ensure consistency" (pg. 5-3), Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #537-2 | This Draft EIS doesn't look at Travel Management or Grouse Management. However, both of these will follow as a "connected action". It is important to see the bigger picture as to which roads will be open or closed and what the restrictions the grouse management will bring. With out the travel plan and grouse plan, the BLM cannot outline the full impacts. | Travel and transportation management provide implementation level actions outside the scope of this land use planning document. Greater sage-grouse management is being analyzed under a separate amendment process. See Sections 1.3 and 2.2.5. |
| 838 - General-NEPA Compliance | #539-4 | Appendix N of Volume 2 outlines the economic analysis of the plan. However, this analysis is lacking and has failed to take a "hard look" at what economic disruption the management prescriptions in this plan would have on the livestock industry. For example, as discussed supra, grazing could be reduced by 20% in riparian areas within the ACEC if the BLM determines an allotment is not meeting the BLM's rangeland health standards, or due to restrictions related to the ACEC itself, AUMs or rangeland improvement projects could be hamstrung which could significantly affect our grazing operations and these kinds of affects were not looked into under Alternative B. We attest that significant reductions in AUMs would run our operation out of business and a further economic analysis should be done under the circumstances presented under Alternative B. | In addition to the complete technical socioeconomic report included in Appendix N, Chapter 4.22 contains a full analysis of the various management actions proposed under each alternative (including livestock grazing). |
| 838 - General-NEPA Compliance | #539-17 | Sweetwater County believes that the objectives of special designations can be met by well-planned and managed development of natural resources. For this reason, special designations established in a plan need to be based on identified need and supported by verifiable scientific data available to the public. A special designation must show that protection cannot be provided by other means and that the area in question is truly unique compared to other area lands. The area classified shall be the smallest area necessary. | Existing special designations are discussed in Chapter 3.22 and analysis for all four alternatives, including all proposed special designations can be found in Chapter 4. Management actions for special management areas are outlined in MA#7300-7348. |
| 838 - General-NEPA Compliance | #539-18 | Inconsistencies with Sweetwater County Land Use Plan Under Volume 1, Chapter 5, of the RMP/DEIS, the BLM explains how it completed coordination, consultation, cooperation, and consistency. These are all separate and different things under the NEPA regulations and FLPMA. For purposes of this comment letter, we will focus on how the BLM has failed to keep its preferred alternative "consistent" with the Sweetwater County Resource Management Plan ("CRMP") as required under FLPMA. | See Section 2.2.3 regarding BLM compliance with NEPA and CEQ compliance in developing alternatives for the DEIS, including seeking public input and analyzing reasonable alternatives. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #551-1 | I am the representative for the Wyoming House of Representatives for House District 48 (Rock Springs), a state elected official for purposes of the Federal Land Policy Management Act of 1976. Under Section 202(c)(9) of FLPMA, the Secretary of the Interior, in developing a land use plan, is to "provide for meaningful public involvement of State and local government officials, both elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands, including early public notice of proposed decisions which may have a significant impact on non-Federal lands. Such officials in each State are authorized to furnish advice to the Secretary with respect to the development and revision of land use plans, land use guidelines, land use rules, and land use regulations for the public lands within such State and with respect to such other land use matters as may be referred to them by [the Secretary]." 43 U.S.C. §l 712(c)(9). | See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| 838 - General-NEPA Compliance | #551-2 | The Secretary, acting through the U.S. Bureau of Land Management ("BLM"), has not adequately consulted state and local government officials with respect to its preferred Alternative B of the BLM's proposed Resource Management Plan for the Rock Springs district. For several years the BLM has led state and local officials to believe that its preferred alternative would be Alternative D, which, although not perfect, does allow for multiple use of public lands. Prior to August 18, 2023, state and local officials had no reason to believe that the BLM was seriously considering Alternative B. As a result, state and local officials, including myself, have not had opportunity to have meaningful involvement with respect to the development of Alternative B. As result, I request that the BLM withdraw the proposed RMP and re-engage in a meaningful consulting process with state and local governmental officials and stakeholders. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #789-1 | The BLM has been working on this draft RMP since 2011, 140 months, and to offer a 150-day public comment period for residents, cooperating agencies and stakeholders to digest and respond to a document of this size, although better than 90-days, is simply unreasonable. | Public involvement has been part of the RMP process. See chapter 5 for details of public involvement opportunities |
| 838 - General-NEPA Compliance | #4026-10 | Chapter 4.2.2 Availability of Data and Incomplete Information. In addition to the incomplete data elements listed (soils, geohydrological, range condition, forest resources), I feel the BLM needs to also add there are incomplete data on potentially significant cultural sites, potentially significant paleontological resources, critical wildlife migration routes, rare plant populations, and a comprehensive spring and wetland inventory. At the present time, intensive inventories appear to occur on a project-by-project basis relating to specific surface-disturbing actions that can be well into the planning and design phases. The absence of data makes it very difficult when it comes to accurate resource management decisions, and can result in an inefficient use of both staff time and money. This lack of resource data is a very good reason Alternative B should remain the preferred alternative. | Section 4.2.2 presents impacts for Socioeconomics from each of the four alternatives analyzed. A summary of resources existing in the field office can be found in Chapter 3 (Affected Environment), with analysis for each of those resources provided in Chapter 4 for each of the four alternatives analyzed. |
| 838 - General-NEPA Compliance | #8914-1 | This RMP violates the National Environmental Policy Act. The purpose of NEPA is to ensure that environmental factors are weighted equally when compared to other factors in the decision-making process undertaken by federal agencies and to establish a national environmental policy. There is nothing equal when you factor in Wyoming's economy, citizens, industrial base, livestock industry, and ability to access and use the lands within Wyoming borders. | The DEIS is in compliance with NEPA and FLPMA (see Section 1.4 "Planning Criteria"). Additionally, Chapter 3 of the DEIS provides a summary of existing resource conditions, Chapter 4 provides an analysis for all resources for each of the four alternatives, and Chapter 2 provides an in-depth list of every management action proposed for each of the four alternatives. See Chapter 5 for a information about public involvement and consultations, and Chapter 1.3 for the planning criteria. |
| 838 - General-NEPA Compliance | #9684-7 | Sweetwater County Weed and Pest District appreciates the BLM for considering and including the impacts of invasive and noxious weeds and pest into their Rock Springs RMP. We would recommend that Weed and Pest Districts be included as cooperating agencies in resource management planning. We are not a department of the county and, like conservation districts, we are special districts with boundaries that match those of the county. Our purpose is to help with collaborative invasive species management activities within our districts, which includes the public lands. Sweetwater County Weed and Pest is a partner on projects within the RSFO. Sweetwater County Weed and Pest currently has a noxious weeds agreement for treatment on lands within the RSFO. | The BLM will consider whether to invite Sweetwater Weed and Pest to participate as a Cooperating Agency for this RMP and other actions in the field office. |
| 838 - General-NEPA Compliance | #9792-27 | The BLM's proposed ROW Exclusion area violates the Sublette County Federal & State Land Use Policy: "Discourage the prioritization of any one land use until after the impacts to other multiple uses are fully quantified and mitigated. Any proposal to close federal lands to a multiple use must be approved by Sublette County after a public hearing." | See Glossary for a definition of a Right-of-way exclusion area. Also, see Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 838 - General-NEPA Compliance | #9792-28 | Alternative B does not comply with many other portions of the Sublette County policy, including any provision of the county policy pertaining to rights-of-way and corridors, as well as provisions for designations of ACECs, recreational uses, visual resource management, fire management, forest, rangeland, and vegetation management, cultural, historic, geological, and paleontological resources, energy, mining and mineral resources, wildlife, predator control, socioeconomics, and livestock and grazing. The BLM should not use Alternative B as its preferred alternative since it fails to comply with these provisions in the county policy. | See glossary for definitions of special management designations such as ACEC and for right-of-way exclusion areas. See section 5.1.2 "The interdisciplinary team reviewed county land use plans to ensure consistency" (pg. 5-3), Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). |
| 838 - General-NEPA Compliance | #9792-35 | Redefine "disruptive activities" from the DEIS definition that includes provisions that declare "an activity is 'disruptive' if the activity would require people and/or the structure or activity to be present in these habitats for a duration of more than one hour during any one 24-hour period during the applicable season in the site-specific area." Replace with the definition used in the Green River ROD & RMP, October 1997: "Disruptive pertains primarily to human presence and related activities that may cause displacement of or excessive stress to wildlife during critical life-cycle periods." | This definition was redefined in the 2015 and 2019 Greater Sage Grouse Amendments that amended the 1997 Green River RMP. |
| 838 - General-NEPA Compliance | #9792-36 | Redefine "Surface Disturbance" from the DEIS's long definition that includes short-term removal of vegetation. Replace with the definition used in the Green River ROD & RMP, October 1997: "Defined as human activities, including traffic and motorized activities often associated with surface disturbance activities that affect wildlife species, particularly in crucial ranges." | This definition was redefined in the 2015 and 2019 Greater Sage Grouse Amendments that amended the 1997 Green River RMP. |
| 838 - General-NEPA Compliance | #9793-3 | How the BLM's glossary defines words will dictate how resource use is restricted. For example, Alternative B proposes to "prohibit livestock grazing in big game parturition habitat during the birthing season." The glossary defines big game to include elk, deer, bighorn sheep, moose and pronghorn. That means that livestock grazing is prohibited even in pronghorn antelope fawning habitat during the birthing season, so no domestic sheep or cattle on grazing allotments through June 30. Really? Did the BLM only mean to apply this term to specific designated birthing areas and only for certain big game species like elk, or only in certain designated areas? As written, the | Glossary updated to clarify definition of 'parturition'. |

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| | | document would prohibit any livestock grazing on most of the district through June 30. This would substantially impact livestock producers, making them unable to use the AUMs the BLM states are authorized under this alternative. This outcome is not disclosed in the DEIS. Alternative B says the BLM will "Seasonally close vehicular travel in crucial and important wildlife habitats and during crucial and important periods (big game crucial winter ranges 11/154/30, deer parturition areas 5/1-6/30, elk calving areas 5/1-6/30, moose calving areas 5/1-6/30, raptor nesting areas 2/1-7/31)." Again, did the BLM mean vehicle closures would only apply in certain designated birthing areas, or wherever in the district these areas occur? Right now, the document state's that it's wherever in the district these areas are located. When all these restrictions are overlaid, it would close a large portion of the RSFO to vehicular traffic for a large part of the year. There are hundreds of raptor nests scattered throughout the sagebrush ecosystem when all raptor species are considered, so vehicles would be unable to use these areas from February 1 to August 1, under the plain reading of BLM's plan. That information isn't readily disclosed to the public in the DEIS. The BLM defines "disruptive activities" as activities that "would require people and/or the structure or activity to be present in these habitats for a duration of more than one hour during any one 24-hour period during the applicable season in the site-specific area." It's important to note that this definition can apply to any use of public lands - not just energy development. So when the BLM proposes (Page 2-69) to "Prohibit surface disturbing or disruptive activities on big game crucial winter ranges, parturition areas, migration corridors and transitional habitats, as identified by WGFD" it means any human use for more than one hour in a 24-hour period within these areas would be prohibited. That's what the DEIS says, meaning: People would be prohibited from camping within these habitats during that time. Sheepherder camps would be prohibited. Anything that involved people being present for more than one hour would be prohibited. But this time the BLM noted the restriction would apply in these habitats as identified by the Wyoming Game & Fish Department. But the BLM did not include maps of these areas in the DEIS (another significant failure by the federal agency). By not providing the maps, BLM is not providing a fair and comprehensive document for our assessment. | |
| 838 - General-NEPA Compliance | #9846-2 | Definition of words/phrases are not provided or explained-ie “surface disruption,” “organized event,” “sustainability,” etc. | Definitions of terms in the Glossary are provided to indicate how BLM interprets the terms as used in the EIS document. |
| 838 - General-NEPA Compliance | #9846-5 | TP defines “animal damage control” as “The control of animals that are causing economic losses to agriculture, damage to property, or hazards to human health. Such control usually results in the killing of the offending animal(s).(See also Wildlife Services.)” TP definition misinforms rather than states facts. USDA Wildlife Services practices “integrated wildlife damage management” using goth lethal and non-lethal control and deterrence methods. For FY 2022, approximately 21.5 million animals causing damage or threatening to cause damage were encountered by the agency; dispersed almost 20 million of these animals unharmed (91.4 %), while lethally removing 8.6 %. | Glossary terms reviews and updated as needed per APHIS consultation |
| 838 - General-NEPA Compliance | #10452-1 | What is equally as evident, however, is that until this draft RMP was released with Alternative B as the "preferred" option, those involved in this process viewed Alternatives B and C as "bookend" outliers of extremes. Rather, Alternative D was the work of negotiation, compromise, data driven analysis to effectuate balanced, sustainable conservation that placed a balanced value on cultural and historical artifacts, plant-life, fish and wildlife with human need for use and expansion of resources, including mining, maintenance and construction of pipelines, roadways and other surface use to co1111ect resources, recreation and use. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #10468-1 | BLM’s issues of the preservation driven “preferred” Alternative B which blatantly disregards stakeholder work, comment and assistance in direct contradiction to Chapter 5 “consultation and coordination,” | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #10468-6 | Rather than honor a decade worth of cooperation, work and development of a balanced approach, Alternative D, the BLM has chosen to issue this draft RMP with a direct, haphazard, impractical and insincere preference of Alternative B. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13032-1 | The purpose and need as defined by the BLM in the Draft RMP Amendment does not align with mandated laws which govern the BLMs authority. In truth it constitutes a blatant abuse of authority and discretion. | The BLM's purpose and need for the Rock Springs RMP revision is provided in Sections 1.2.1 and 1.2.2. See also Appendix E. |
| 838 - General-NEPA Compliance | #13064-1 | The Committee does not understand how the United States Secretary of Interior has identified Alternative B as the preferred alternative when it was developed with minimal, if any, cooperating agency input or public comment, and was completed within one week. At this time, the Committee does not support one of the other alternatives, but the Committee recognizes that the cooperating agencies worked tirelessly on Alternative D to provide a resource-management approach that would best serve Wyoming and its competing interests. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13210-23 | 23. The BLM has not meaningfully met with cooperating agencies in over two years. The task force requests that the BLM reengage with the Rock Springs RMP cooperating agencies and hold regular meetings between draft and the completion of the Record of Decision. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| 838 - General-NEPA Compliance | #13217-1 | After some research I see the Select Committee on Federal Natural Resource Management (Committee) of Wyoming heard testimony during the October 6, 2023 meeting in Casper from a retired BLM Rock Springs Field Office employee. The retired employee testified that Alternatives B and C were both developed in one week, while Alternative D was developed over twelve years with significant input from cooperating agencies. The Committee does not understand how the United States Secretary of Interior has identified Alternative B as the preferred alternative, and neither do I, when it was developed with minimal, if any, cooperating agency input or public comment, and was completed within one week. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13287-1 | For example, wilderness inventories have identified lands with wilderness characteristics that do not qualify for protection solely because they are consolidated into 640-acre units, and which would fully qualify for wilderness (and Wilderness Study Area) protections if they were in consolidated federal ownership. A National Conservation Area proposed for the Red Desert (Attachment 1) includes checkerboard lands, whose management would be complicated by intermixed private lands and minerals. Sage grouse Priority Habitat Management Areas exist in checkerboard lands, and it is difficult to apply the full level of prescribed protections to these checkerboard portions due to fragmented land ownership patterns. Wildlife migration corridors cross the checkerboard, and their conservation is impeded by the presence of private inholdings. Alternative B considers providing public access to public lands across private property at the landowner's request (DEIS at 2-109); if access is to be granted only on a request basis, it should be at the public's request rather than the landowner's. | MA#6000 on pg. 2-109 addresses access to public lands, including private landowner requests for access across public lands. |
| 838 - General-NEPA Compliance | #13287-10 | Thus, NEPA's mandate is that all federal agencies analyze the likely effects of their actions, as well as address the potential alternatives. "Agencies are to perform this hard look before committing themselves irretrievably to a given course of action so that the action can be shaped to account for environmental values. NEPA § 102(2)(c) requires the agency to consider numerous factors [including] irreversible commitments of resources called for by the proposal." Sierra Club v. Hodel, 848 F.2d 1068 (10th Cir. 1988) (rev'd on other grounds)(emphasis added). NEPA provides procedural protections for resources at risk by requiring analysis of impacts before substantial decisions are made that set development in motion. See Conservation Law Foundation v. Watt, 560 F. Supp. 561, 581 (D. Mass. 1983), aff'd by Massachusetts v. Watt, 716 F. 2d 946 (1st Cir. 1983). While the Draft EIS provides lists of different categories of impact by resource, it fails to quantify the direct and cumulative impact of the multiple types of impacts authorized under the plan. See, e.g., effects on water quality at 4-33. It is not enough to provide a laundry list of impacts; cumulative effects on individual resources must be analyzed and disclosed. | The DEIS discloses cumulative impacts, as discussed in the Executive Summary "Environmental Consequences" (pg. ES-6). These cumulative impacts are detailed in Appendix T. |
| 838 - General-NEPA Compliance | #13287-26 | The direction for riparian areas under Alternative D is a violation of BLM regulations, because it requires lands to meet or move toward meeting Land Health standards within 10 years; if lands are not currently meeting or moving toward these standards, then corrective action must be taken prior to "the start of the next grazing year" (not within 10 years), under federal regulations. 43 CFR § 4180. | The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies (see Section 1.4). See also Appendix E. |
| 838 - General-NEPA Compliance | #13330-8 | * MA # 4430: Sweetwater County Farm Bureau prefers alternative A. The least adequate is alternative B to "prohibit surface occupancy within one mile of occupied and historic raptor nests and associated feeding grounds." This is excessive restriction of multiple use. Including "historical" raptor nests is especially ambiguous and sets a dangerous precedent to restrict access of a changed habitat with no current proof of viability. Alternative B is grasping at straws to restrict access on inaccurate (old) data incongruent with the science of present-day raptor sites. | Proposed management actions for raptors are provided for each alternative in MA#4428-4434. |
| 838 - General-NEPA Compliance | #13353-6 | The most recent Sublette County policy was adopted by motion and approval on 9/7/20211, nearly two years before the release of the Draft RMP/DEIS, and over ten years after the "the scoping period [which] began on February 1, 2011 and ended on April 4, 2011" per page ES-7 of the Draft. Under the "Needs" statement (page ES-2), the document reads, "The need for revising the Green River RMP (1997) is the result of considerable changes withing the planning area…new data has become available, new policies established, and old policies revised." Surely our 2021 policy adoption should fall under the "new policies established, and old policies revised" that are purported to be the causal agent, or "need," for the new RMP. The Federal Land Policy and Management Act of 1976 ("FLPMA") specifically directs the BLM to coordinate with state, local, and tribal governments to assist in resolving inconsistencies between BLM's land-use plans and local land-use plans. However, there is no acknowledgement in the Draft of our updated land use plan. In fact, on page 1-6, the document refers to the Sublette County Federal and State Land Use Policy of 2009. As such, we feel that the BLM has not, "to the maximum extent," determined that the plan is consistent with our 2021 Federal and State Land Use Policies. We urge the BLM to properly review such issues! | See updates to Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |
| 838 - General-NEPA Compliance | #13353-14 | The 2023 Draft RMP/DEIS Glossary of Terms (page GL-30) includes numerous outdated de?nitions that have been revised since the Draft RMP/DEIS was ?rst written. Consistency and clarity are important and de?nitions matter in the Record of Decision. Please consider revising the 2023 Draft RMP/DEIS Glossary of Terms to re?ect nationally accepted best practices. Speci?cally, please update all terms related to wildland ?re and incident management in accordance with the approved de?nitions contained within the NWCG Glossary of Wildland Fire, PMS 205. The NWCG Glossary of Wildland Fire provides an extensive listing of approved terms and de?nitions used by the NWCG community. | Glossary terms were reviewed and updated as needed per BLM wildfire policy. |

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| 838 - General-NEPA Compliance | #13402-1 | We strongly urge the BLM to abandon the proposals to eliminate all wild horses in the Salt Wells and Great Divide Basin Herd Management Areas (HMAs) and to sterilize wild horses in the White Mountain HMA. The EIS fails to (1) take a hard look at the cumulative negative impacts of the proposed actions on wild horses in Wyoming, (2) consider and incorporate prevailing public opinion which opposes these actions and (3) consider reasonable alternatives to address claimed concerns regarding the current wild horse populations." From a petition from The Cloud Foundation | Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern were addressed under a separate RMP Amendment (2023) (see Sections 1.3 and 2.2.5). See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." |
| 838 - General-NEPA Compliance | #13415-1 | The Committee does not understand how the United States Secretary of Interior has identified Alternative B as the preferred alternative, and neither do I, when it was developed with minimal, if any, cooperating agency input or public comment, | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13446-2 | According to the USDA 2021 ranking statistics, Wyoming ranks nationally as number two for lamb and wool production respectfully and ranks number four overall. For all cattle, Wyoming ranks 23. These alone are strong contributors to the national and international textile and food production pipelines and should not be so easily dismissed.(https://www.nass.usda.gov/Statistics_by_State/Wyoming/Publications/Annual_Statistical_Bulletin/WY-2021-Bulletin.pdf) | Livestock grazing management impacts are analyzed in Section 4.16 and socioeconomic impacts are analyzed in Section 4.22. |
| 838 - General-NEPA Compliance | #13514-1 | this is 2024 the the numbers and data are from 2012 and earlier | See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 838 - General-NEPA Compliance | #13521-1 | BLM failed to follow proper procedures in the implementation and choosing of plans for this proposal without consulting state agencies, boards, or committees before the final choice of plans was made. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13527-5 | Co-Stewardship: We urge BLM to include direction in the final plan to foster collaboration between BLM and Tribal Nations in the stewardship of their homelands. | BLM has conducted Nation-to-Nation consultation with a variety of Tribes throughout the RMP planning process. See Chapter 5. |
| 838 - General-NEPA Compliance | #13542-2 | Cooperative federalism-the BLM's preferred alternative overrides principles of cooperative federalism and asserts BLM authority over matters already designated by law to other expert agencies both in state and federal governments. The BLM is a prominent land and use management agency. However, the Wyoming Department of Environmental Quality's Land Quality, Air Quality, Water Quality, and Hazardous Waste Divisions, and the US EPA have specific legal authority over several matters that the BLM is seeking to regulate in a very different way. This creates unnecessary confusion and the potential for contradictory regulations for the same activities. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 regarding coordination and cooperative efforts with Wyoming DEQ and US EPA. |
| 838 - General-NEPA Compliance | #13542-5 | Section 1.1. 1-1 Table 1-1 acreages do not match Table 1 in ES. | Table 1 in Executive Summary compares land use restrictions and allocations across all four alternatives. Table 1-1 in Section 1.1 shows land and mineral ownership and administrative jurisdictions within the Rock Springs planning area. |
| 838 - General-NEPA Compliance | #13542-7 | Section 1.3. Alternatives A, B, C, and D. 1-3 Planning Issues notes that Greater sage grouse Priority Habitat Management Areas and General Habitat Management Areas and management actions including mineral development restrictions under earlier amendments are outside the scope of this planning effort and are not analyzed. Excluding these items in the analysis contradicts the expressed purpose and need for the amendment. Moreover, these are changes from Alternative A that represent additional uncertainty as to the impacts of Alternatives B, C, and D that the agency has not adequately analyzed or disclosed to the public as required by the National Environmental Policy Act (NEPA). More restrictions on mineral development and rights of way are very possible in the future and represent more risk to mineral development. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. See Planning Criteria in Section 1.3. |
| 838 - General-NEPA Compliance | #13542-56 | 4.2.3 Analysis Assumptions 4-3 When BLM refers to "expected trends, expected demands, and the likelihood of resource development" are these statistically significant and will the research be shared publicly? Please provide the method with which these will be determined. | Examples of trends, demands, and potential development are explained in Section 4.2.3 and are referenced in the analysis for each alternative when utilized, provided in the Appendices (Ex. Appendix N) or are provided in the Refenced in the 'Literature Cited' section. |
| 838 - General-NEPA Compliance | #13542-57 | 4.2.3 Analysis Assumptions 4-3 BLM should address employee onboarding and retention issues. The Rock Springs BLM office currently cannot fully implement the current RMP which is less stringent. Additional staff will be necessary to implement any new Alternatives that are put in place. How does BLM plan to address this issue? | Staffing of BLM personnel is outside the scope of this Resource Management Plan revision. See Section 1.3 for Planning Criteria of this land use planning process. |
| 838 - General-NEPA Compliance | #13542-94 | Appendix T. T.1.3. Cumulative Impacts by Resource. T-7 Estimations of future BLM and non-BLM lands uses 2014 Wyoming statewide data from the 2014 National Emissions Inventory (NEI) Data released by the EPA. This data is 9 years old now and newer data should be used. The emissions inventory is required annually for all Title V facilities that would have the largest amounts of emissions. The NEI is released by the EPA every 3 years, so there is a 2017 and a 2020 dataset that could have been used in the analysis instead of 2014 data. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The air quality analysis baseline data is adequate for analysis purposes to compare the four alternatives. This EIS is a not a reporting document for total emissions, but rather a comparative analysis for proposed BLM management actions. |
| 838 - General-NEPA Compliance | #13542-95 | Appendix T. T.1.3. Cumulative Impacts by Resource. T-7 Trona and soda ash manufacturing is not included in the list of activities occurring the RSFO that were compared to the NEI 2014 data; however, all trona mines/soda ash manufacturers are major sources and have Title V operating permits. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | Trona emissions are included in Table T-7 of Appendix T. |

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| 838 - General-NEPA Compliance | #13542-96 | Appendix T. T.1.3. Greenhouse Gas Emissions. T-13 The source of the Greenhouse Gas Emissions data is 2018. These are reported annually, and newer data should be used in the analysis. Please revise and update the agency's analysis to include the latest data and disclose the same to the public. | The air quality analysis baseline data is adequate for analysis purposes to compare the four alternatives. This EIS is a not a reporting document for total emissions, but rather a comparative analysis for proposed BLM management actions. |
| 838 - General-NEPA Compliance | #13542-97 | Appendix T. T.1.3. Greenhouse Gas Emissions. Table T-7. T-16 "Trona Transport" needs to be defined. | Appendix T has been clarified for 'trona transport' |
| 838 - General-NEPA Compliance | #13564-5 | The data collected and used to calculate the economic impacts of this RMP ranges up to 15 years old and does not reflect the current economic environment of the area. Additionally, the agency's preferred choice does not reflect the community, as it eliminates the largest amount of industry. This comes at a time when the US is under unprecedented inflation rates that are affecting everyone across the country on all levels. It is vital that the BLM focuses on using data that is relevant to the current state of the community to adequately determine the over all impact of each Alternative. The implementation of Alternative B puts the economic state of the surrounding communities into disarray. Furthermore, this impacts the entire state in the long term, as tax dollars from extraction industries under the RMP are collected and distributed among the state with the highest percentage going to the counties. County and City taxes are also collected from tourists visiting the area for its resources and recreation. The loss of this income can impact community welfare. | "The socioeconomic model is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. Socioeconomic analysis is covered in Appendix N, including data assumptions and the timeframe of the analyses. See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 838 - General-NEPA Compliance | #13571-1 | The Current RMP was initiated in 2011. Most of the data and analysis being used is from 2013 (pg. ES-1) Other data used from earlier dates can be found through out the RMP. Up to date and current Data should be used before finalization of the RMP. Using outdated data (greater than 10 years in some cases) indicates the RMP is not accurate and therefore not complete. | See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 838 - General-NEPA Compliance | #13574-1 | MA #4421 Alternatives C and D have language that meets big game habitat needs while providing specific dates which allow land users to plan their activities, and on a case-by-case basis apply appropriate mitigation practices and obtain exceptions where no undue impacts to big game will occur. Big game migration corridors also need protections and their locations are a matter of research and on-going monitoring by WGFD. Accurate evaluation of the impact of these migration corridors is very difficult until WGFD releases the latest migration corridors map. | Impacts to wildlife and fisheries are analyzed in Section 4.7, including acknowledgement that big game habitat will be managed in coordination with WGFD. See also proposed Big Game Migration Corridors ACEC actions at 7555 through 7562. |
| 838 - General-NEPA Compliance | #13585-2 | The Federal Land Policy and Management Act ("FLPMA") requires the BLM to "coordinate the land use inventory, planning, and management activities of or for [public] lands with the land use planning and management programs ... of the States and local governments within which the lands are located." 43 U.S.C. § 1712(c)(9). As part of this coordination, the BLM is to provide "meaningful public involvement of State and local government officials, both elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands." Id. This includes the requirement to "develop resource management plans collaboratively with cooperating agencies" and with"meaningful public involvement of other Federal agencies, State and local government officials." 43 C.F.R. § 1610.3-l(a)(4) - (5); see International Snowmobile Mfrs. Ass'n v. Norton, 340 F. Supp. 2d 1249, 1261-62 (D. Wyo. 2004). Local governments must be provided with an "opportunity for review, advice, and suggestion on issues and topics which may affect or influence other agency or other government programs." 43 C.F.R. § 1610.3-l(c). In addition, "Field Managers should also collaborate with cooperating agencies in evaluating the alternatives and developing a preferred alternative." BLM Handbook 1601, Section l.E.2.c; see id. at Section 9.2.7.3 ("Whereas the BLM must work with cooperators and other interested parties to encourage consensus on a preferred alternative "). The National Environmental Policy Act ("NEPA") and its implementing regulations also recognize the importance of cooperation with State and local governments early in the NEPA process. 42 U.S.C. § 433 l(a); 40 C.F.R. § 1501.8(a), (b)(l) (2020); see also Department oflnterior, 516 DM 11, Section 1l.4(C) (Dec. 10, 2020). During the long history of the RMP revision process, the BLM focused early on in the 2012 cooperating agency meetings on editing the BLM's proposed Alternatives Band C. See DEIS at Table 5-1. However, after these discussions and revisions were made, the BLM made few, if any, substantive changes to these Alternatives after 2013. Alternative B was conveyed as representing a bookend or placeholder versus being functional or reasonable. The BLM and the cooperating agencies instead put all their focus on developing Alternative D, which was referred to as the Balanced Alternative, starting in 2015. It was at this point that the focus of all cooperating agency meetings was on developing Alternative D and the analysis associated with that alternative. See e.g. Attach. 1, Field Manager Email (May 20, 2019). By April 3, 2017, the Field Manager had identified Alternative Das the agency's preliminary preferred alternative. Attach. 2, Field Manager Letter (April 3, 2017). When the Administrative DEIS was released to cooperating agencies at the end of 2019, Alternative D continued to be identified as the agency's Preferred Alternative and was the focus of cooperating agency comments. See Attach. 3, Field Manager Email (March 15, 2018). At the direction of the BLM, because Alternative B was communicated as not a realistic conclusion, and due to Alternative D becoming the agency's preferred alternative by at least early 2017, the cooperating agencies spent a majority of their time and efforts on working with the BLM to develop Alternative D, refine this alternative, and focus their comments on this alternative. Cooperators were explicitly directed not to focus on Alternative B. With this focus, the cooperators were not provided with meaningful participation in developing Alternative B since 2013, nor did Alternative B receive much attention after 2013. It has been about 10 years since the BLM or the cooperators spent any time on refining or | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| | | adjusting Alternative B, even after working on the environmental impact sections of the DEIS. The cooperators were not provided with meaningful involvement in developing Alternative B. See 43 C.F.R. § 1610.3-l(a)(4) - (5); see also International Snowmobile Mfrs. Ass'n v. Norton, 340 F. Supp. 2d at 1261-62. In addition, the cooperators had zero involvement with the selection of Alternative B as the Preferred Alternative. At one of the last cooperating agency meetings on July 14, 2020 (see DEIS at Table 5-1) and after receiving comments on the Administrative DEIS, the BLM continued to identify Alternative D as the Preferred Alternative. Then again on June 22, 2022, after two years of not meeting with cooperating agencies, the BLM provided an update on the status of review of the DEIS and amendments that were made to the Preferred Alternative D to reflect current BLM policy and direction. It was not until the release of the Proposed RMP and DEIS to the public a year later, in August of 2023, where Sweetwater County and other cooperating agencies were made aware of the BLM's dramatic shift in its preferred alternative to the most conservative of all alternatives, Alternative B, which was neither reasonable nor ready for submission. The dramatic shift from Alternative D to Alternative B negates the decade long collaboration and efforts of both BLM and cooperating agencies in developing the Alternative D. It further goes against BLM's own policy to work collaboratively with cooperating agencies in developing and working to reach consensus on a preferred alternative. See BLM Handbook 1601, Section l.E.2.c; see id at Section 9.2.7.3. All the cooperating agencies' focus, and commenting was directed to Alternative D and emphasized to them that this was going to be the Preferred. | |
| 838 - General-NEPA Compliance | #13585-3 | This shift in the preferred alternative was done behind closed doors, without cooperator involvement, and occurred after having limited communications with cooperative agencies for about three years. The BLM must take a step back and work collaboratively with the cooperating agencies in developing the Preferred Alternative for the Rocks Springs Proposed RMP between now and the release of the FEIS. It cannot continue to push forward in this new direction without providing meaningful involvement of the cooperating agencies in developing the Preferred Alternative. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13585-4 | The regulations currently state that to ensure NEPA reviews are conducted "as efficiently and expeditiously as practicable," an EIS must be completed within two years of issuing a notice of intent. 40 C.F.R. § 1501.10(b)(2) (2020). While the 2020 revisions to the NEPA regulations apply to processes started after September 14, 2020, the BLM could apply the new regulations to ongoing activities and environmental documents started before that date. 40 C.F.R. § 1506.13. In addition, the 2023 Fiscal Responsibility Act requires an EIS to be completed within two years. | See Executive Summary page ES-1 for explanation of the CEQ's 1978 NEPA regulations governing the preparation of this EIS because it was begun prior to September 14, 2020. |
| 838 - General-NEPA Compliance | #13585-5 | The BLM's 13+ years of work on this RMP revision far exceeds the BLM's newer mandates to complete an EIS within two years. It also places into question the currentness of the data and inventories the BLM relies on for this revision and environmental analysis. Most of the baseline data was from 2013 or earlier. DEIS at ES-1. Due to the length of time this RMP and DEIS have sat, the information relied upon is largely outdated and must be updated before the RMP goes final. 43 U.S.C. § 171 l(a); see also 40 C.F.R. § 1502.23 (2020). | See Chapter 3 (page 3-1) regarding adequacy of baseline data for comparative analysis purposes. |
| 838 - General-NEPA Compliance | #13585-44 | b. Inadequate Discussions and Mapping for Mileage of Roads Open/Closed/Limited Under the DEIS Throughout Chapter 4 the DEIS provides information on the mileage of roads either opened, closed, or limited under each Alternative. See e.g. DEIS at 4-25 (Alternative B's OHV management includes: ""12,831 acres open, 225,537 acres closed, and 3,367,576 acres limited to designated roads and trails, including 2,352 miles of open routes, 4,505 miles of closed routes, 67 miles of Limited routes (routes limited to either non-motorized vehicles (e.g., bicycles) or to foot traffic), and l 0.006 miles of transportation linear disturbance (routes that are not part of the BLM transportation network and would be identified for decommissioning)."). The BLM has continued to state that this language will be removed from the DEIS and that Travel Management Planning will occur at a later date. The County supports removal of this information considering that no lists of the proposed roads' status or mapping of roads has been provided in the DEIS. | Chapter 4 has been updated to remove the erroneous references to Travel Management results. |
| 838 - General-NEPA Compliance | #13585-45 | The County would also respond to the BLM's statements that travel management planning has not occurred. This is disingenuous and ignores the work the County completed and provided to the BLM on inventorying public roads, routes, and other linear features in the Rock Springs Field Office over the last decade. The BLM had also developed a range of alternatives for the proposed transportation network as is evidenced by the identification of numbers of miles open, closed or limited under each alternative in the DEIS. In fact, a travel management plan has essentially been developed but has not been fully released to the public at this time. | See updates to Chapter 4.17 removing erroneous text on route designations. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 838 - General-NEPA Compliance | #13585-46 | The County does not support the reduction of access as currently proposed by the Preferred Alternative B through road closures. In addition, the proposed closures may impact roads that the County claims title over. | See updates to Chapter 4.17 removing erroneous text on route designations. As stated in Management action 6607, see maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |
| 838 - General-NEPA Compliance | #13585-47 | Even if travel management planning will occur at a later date, the BLM is still required to "document [within the RMP] the decision-making process used to develop the initial network; provide[] the basis for future management decisions; and set[] guidelines for making transportation network adjustments throughout the life of the plan." BLM Handbook 8242 at p. 17 (Mar. 16, 2012). This includes assessing the current ground transportation linear feature database during the pre-planning stage and producing a "map of the known and existing network of transportation | As stated in MA#6607, see Maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route-specific travel and transportation management decisions are outside the scope of this DEIS. Route specific Travel and Transportation Management decisions are outside of the scope of this RMP and will be evaluated separately. |

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| | | linear features, includes modes of travel." Id. at 9, 17; BLM Manual 1626, Section 3.5 (Sept. 27, 2016). The BLM must provide maps of the existing transportation network with the DEIS and allow for the public and cooperating agencies to comment on OHV area designations in light of the existing network. In the DEIS's current state, it is impossible to determine the effect of the proposed OHV area designations where there is no baseline data provided or mapping of even the known existing roads, routes, and other linear features. | |
| 838 - General-NEPA Compliance | #13585-57 | NEPA further requires the BLM to discuss within the EIS any inconsistencies of a proposed action with State and local plans, and the extent to which such inconsistencies could be reconciled. 40 C.F.R. §§ 1502.16(a)(5), 1506.2(d). It is not enough for the BLM Field Manager to state that the consistency review will occur after the FEIS has been filed, because NEPA requires that the consistency discussion be included within the EIS. See Quechan Tribe of Ft. Yuman Indian Reservation v. US. Dep't of the Interior, 927 F. Supp. 2d 921, 946 (D. Cal. 2013) (BLM's consistency analysis was sufficient due to the FEIS containing a "General Plan Policy Consistency Analysis which addresses the consistency between the Project and local regulations and law."). | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See Section 2.2.3 regarding BLM compliance with NEPA and CEQ compliance in developing alternatives for the DEIS, including seeking public input and analyzing reasonable alternatives. |
| 838 - General-NEPA Compliance | #13585-58 | The DEIS currently lists the Local, State, and Federal Management Plans, but excludes Sweetwater County's Federal Lands and Resources Plan that was adopted by the County in June of 2022. DEIS at 1-6. While this County Plan is newer, the County did provide it to the Field Manager months before the Proposed RMP and DEIS was released to the public. In addition, the DEIS provides no discussion on how the Preferred Alternative Bis consistent or inconsistent with local, state or federal land use plans, let alone explain how it attempts to resolve any inconsistencies. | See updated Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |
| 838 - General-NEPA Compliance | #13585-59 | The County provides the Sweetwater County Federal Lands and Resource Plan (Attach. 14) and the attached table (Attach. 8, Consistency Analysis Table) to explain ways in which the Preferred Alternative B is consistent or inconsistent with its local land use plans. Overall, Alternative B is largely inconsistent with Sweetwater County's Comprehensive Plan and the Federal Lands and Resources Plan. The County supports managing federal lands for multiple use and sustained yield, and specifically managed for the primary multiple uses of "domestic grazing, minerals, timber, wildlife, recreation, and rights-of-way." Sweetwater County's Federal Lands and Resources Plan at Section 2.1.1 (June 2022). The County also "discourages and vigorously opposes federal land use restrictions or special designations that eliminate multiple uses and constrain economic growth and activity." Id at Section 2.2.2; see id at Section 21.4.2 (County "opposes broad-scale ACEC classifications"). Instead, the County "encourages growth and development to continue in location that contribute to the economic social well-being of County residents." Sweetwater County Comprehensive Plan at p. 2.4 (2002). The Preferred Alternative B is replete with management actions that move away from multiple use, over utilizes special designations to restrict multiple use of public lands and deters economic growth and activity throughout the County. See DEIS at 4-258 - 4-260 (describing the extensive economic impact of Alternative B). | Please see proposed management actions for all four alternatives in Chapter 2, with analysis results for all four alternatives presented in Chapter 4 of the Draft EIS. Final proposed decisions will be presented in the Final EIS and authorized through a future Record of Decision. See updated Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |
| 838 - General-NEPA Compliance | #13585-60 | Not only does Preferred Alternative B's management action overall conflict with the County's land use objectives and policies, but it also has the potential to conflict with the County's plans for development of its neighboring lands and resources. This is a serious concern within the Wyoming Checkerboard, where private, state and federal lands alternate section to section. For example, Alternative B's ROW exclusion area and VRM Class II designation neighbors the County's economic diversification project. Compare DEIS at Maps 2-18 and 2-22 with Attach. 9, Economic Diversification Project "SWC Industrial Development Plan". The County has been working on developing a large industrial complex south of the airport to diversify its economy, and due to its location within the Checkerboard, it requires access and infrastructure across federal lands. However, the Preferred Alternative Bis proposing a ROW exclusion area and VRM Class II designations in the federal lands surrounding this County project area that will prevent the development and construction of the industrial complex. The BLM must address the inconsistencies between Preferred Alternative B and local, state and other federal land use plans before the release of the FEIS. The BLM must also work with cooperators in resolving the vast amount of inconsistencies before moving forward with this planning effort. | Please see proposed management actions for all four alternatives in Chapter 2, with analysis results for all four alternatives presented in Chapter 4 of the Draft EIS. Final proposed decisions will be presented in the Final EIS and authorized through a future Record of Decision. See updated Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |
| 838 - General-NEPA Compliance | #13624-1 | Preferred Alternative B Does Not Reflect Cooperating Agency Input In 2019, BLM provided a briefing presentation that clearly identified Alternative D as the preferred alternative. Rock Springs Draft RMP/EIS, Briefing Presentation (November 1, 2019). The presentation stated that Alternative D provides a "variety of actions identified by public comments and cooperating agency input, and based on balancing ecosystem health and public use of the land." Id. at 67. The presentation also states that Alternative D provides "similar levels of protection, restoration, enhancements, and use of resources as to existing management, with focus on less prescriptive actions to allow more flexibility." Id. Although BLM identified Alternative D as the preferred alternative in 2019, it has since changed the preferred alternative to Alternative B without consultation with WDEQ, a leading cooperating agency that maintains primacy over almost all environmental issues in Wyoming. Because BLM has changed the preferred alternative from D to B without consultation from cooperating agencies and any scientific and regulatory basis, BLM should defer to WDEQ's primacy and expertise in addressing environmental issues in Wyoming. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13624-2 | Acknowledgement of Cooperative Federalism BLM has identified Alternative B as having the greatest opportunity for conservation. However, the Draft RMP/EIS ignores Wyoming's primacy and WDEQ's role and authority in protecting public health and the environment. To assume that the only option to protect human health and the | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| | | environment is to establish a federal fiat of maximum conservation is dismissive of WDEQ's statutory and regulatory authority. It fails to honor the role of cooperating agencies, their expertise in local resource management and devalues the importance of cooperative federalism and engaging with state partners. | |
| 838 - General-NEPA Compliance | #13624-3 | Unclear Cumulative Impacts The Draft RMP/EIS details the impacts of management practices for numerous resource areas such as Areas of Critical Environmental Concern (ACEC), Wilderness Study Areas and right-of-way exclusions. However, information regarding those areas is presented as individual resource areas only. There is no analysis nor detailed description of the overall effect of applying the proposed management actions and any cumulative impacts within the RMP. WDEQ developed a GIS map to display the interrelationship between the application of various management actions and their effect within the Draft RMP area. See Maps 1 to 8. Map 1 includes overlays of proposed actions such as ACEC, wilderness study areas, right-of-way exclusions, Visibility Management Classes I and II, lands with wilderness characteristics, wild and scenic river designations, rivers with wild and scenic values, etc. Based on Map 1, application of the proposed management actions will have significant overlap. Unfortunately, the Draft RMP did not include a map to reflect the cumulative effect if all proposed management actions under Alternative B were applied. Map 1 reflects the cumulative impacts based on WDEQ's understanding of the Draft RMP. | Cumulative impacts are discussed in Appendix T and a comparative summary of impacts for each alternative is provided in Appendix U. |
| 838 - General-NEPA Compliance | #13624-4 | Factual Errors and Incorrect References The Draft RMP/EIS contains numerous incorrect references or misstates WDEQ's statutory authority. See Water Quality Division Comments. Additionally, several documents referenced in the Draft RMP/EIS are incorrect or outdated. For example, there are statements addressing Section 1.4.2 of the Draft RMP/EIS but the Draft RMP/EIS does not include a Section 1.4.2. The failure to accurately identify such details brings into question the overall accuracy of the Draft RMP/EIS and any resulting recommendations. | Error reference to Section 1.4.2 has been corrected. |
| 838 - General-NEPA Compliance | #13624-5 | Proposed Action Without Scientific or Environmental Basis BLM failed to provide scientific or environmental basis for its proposed action, in Alternative B, for trona leasing and carbon sequestration. For example, the Draft EIS states that 2,119,920 acres would be closed to trona leasing. Draft EIS, App'x. V, p. V-18. This is a significant increase of 1,730,368 above what was presented for Alternative D; the previously identified preferred alternative. Draft EIS, Ch. 4, p. 4-109. Furthermore, regarding carbon sequestration, Alternative B proposes to "[l]imit geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities to the Rock Springs Uplift". Draft EIS, Ch. 2, p. 2-109. This is in contrast to Alternative D which would not have limited those activities to the Rock Springs uplift. Id. BLM did not provide a scientific, factual, or regulatory reason to support or explain these proposed actions. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13624-6 | In addition, the Council on Environmental Quality released a proposed rule on July 31, 2023, that states an "[e]arly identification and consideration of issues using high-quality information have long been fundamental to the NEPA process, particularly because this facilitates comprehensive analysis of alternatives and timely and efficient decision making, and the Council on Environmental Quality considers it important to emphasize these considerations in this section. The proposed changes also emphasize that the environmental information that agencies use in the NEPA process should be high-quality, science-based and accessible." National Environmental Policy Act Implementing Regulations Revisions Phase 2, p. 49930, 88 Fed. Reg. 49924 (July 31, 2023). Again, the Draft RMP/EIS failed to provide the scientific or regulatory basis for choosing Alternative B and the management actions proposed. BLM's proposed action must provide this information and sufficient time for meaningful review. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13624-7 | Unsuccessful Cooperating Agency Process The basic underpinnings for successful cooperating agency processes are trust and active engagement. There must be confidence that well thought out and reasoned input from cooperating agencies, such as WDEQ, will be given full consideration by federal agencies. The development of alternatives began by compiling Alternatives A, B and C. Alternative D was developed last, after consideration of the information and conclusions contained in the analysis of the first three alternatives. Draft EIS, Ch. 2, § 2.2.3 p. 2-2. Most notably, Section 2.2.3 states that "public input received during the scoping process was considered to ensure that all issues and concerns would be addressed, as appropriate in developing the alternatives." Id. Based on this language it appears the BLM developed Alternative D after considering public input and information received during the public engagement process, including the input provided by cooperating agencies such as WDEQ, stakeholders and the public. Alternative D was considered, at that time, the preferred alternative because it represented the consensus of all parties, including BLM and WDEQ, and struck a reasonable and thoughtful balance between multiple use and conservation. Rock Springs RMP Draft EIS, Briefing Presentation (November 1, 2019). It is concerning that BLM unilaterally decided to accept Alternative B as the preferred alternative without further consultation with cooperating agencies, including WDEQ. Alternative B dismisses the multiple use requirements, as articulated in Alternative D, and identifies conservation as the priority for the majority of the land within the RMP. Endorsement of a last-minute Alternative B erodes the trust that BLM will fully engage with cooperating agencies in the future. The selection of Alternative B does not reflect the principles of cooperative federalism because it has excluded cooperating parties and agencies with primacy and local expertise from providing thoughtful and meaningful input in the decision-making process. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| 838 - General-NEPA Compliance | #13624-8 | Reengagement with Cooperating Agencies and Cooperative Federalism WDEQ recommends BLM re-engage cooperating agencies and conduct public hearings to consider the significance of changing the preferred alternative. Executive Order 11514 stated that the "heads of agencies shall consult with appropriate Federal, State and local agencies in carrying out their activities as they affect the quality of the environment." Executive Order 11514, § 2(a). As noted in Executive Order 11514, "procedures shall include, whenever appropriate, provisions for public hearings, and shall provide the public with relevant information, including information on alternative courses of action." Executive Order 11514, § 2(b). "Relevant information" to be provided to the public would include an explanation and scientific and regulatory basis for why Alternative D was established with input from stakeholders, the public and cooperating agencies, but is no longer the preferred alternative. Based on the direction of Executive Order 11514, BLM should have consulted with WDEQ as a cooperating state agency before proposing a major shift in policy from Alternative D to Alternative B. WDEQ formally requests the BLM re-engage the cooperating agencies and, considering the significance of the change, we also recommend that BLM conduct public hearings to receive adequate state agency and public input. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13624-9 | The last meeting with the Rock Springs Field Office regarding revisions to the Draft RMP/EIS was held on May 23, 2019. In a letter to Kimberlee Foster, BLM Rock Springs Field Office Manager, Governor Gordon stated the meeting included a detailed discussion of land use restriction changes for cooperators to consider in order to broaden the scope of analysis for a modified Alternative D, "per the directive of the BLM Washington D.C. Office". Governor's Letter (December 6, 2019). During the discussion, BLM emphasized the review and completion of Alternative D, not Alternative B. Governor Gordon specifically asked BLM to "[p]lease consider scheduling a follow-up meeting with State of Wyoming cooperators to discuss how our feedback has been addressed before you publish the draft EIS for public comment." Id. However, WDEQ was not afforded the opportunity for further comment until the Draft RMP/EIS were published. Governor Gordon also sent a letter to Mr. David Bernhardt, Interior Secretary requesting BLM engage with cooperating agencies before the Draft RMP/EIS was released to the public. Letter (May 21, 2020). To WDEQ's knowledge, such consultation with cooperating agencies did not occur. WDEQ is concerned that BLM's failure to engage in consultation with WDEQ violates the principles of cooperative federalism as required by NEPA and ignores WDEQ's role as a cooperating agency with primacy over human health and the environment protection programs. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13624-11 | State Primacy WDEQ has primacy or agreement state status for the majority of federal environmental programs and is charged with protecting human health and the environment. Alternative D recognized that activities that require permitting by WDEQ could be done while protecting human health and the environment. Alternative D also recognized multiple use could be accomplished in a responsible manner. Under the concept of primacy, a state obtains primary authority to enforce environmental controls through a federally approved state program. As a practical matter, primacy means that citizens and industry located within that state deal with state regulators in the first instance. BLM should be advised that Wyoming, acting through WDEQ has primacy over water, air, solid and hazardous waste, abandoned mine land reclamation, and coal mining (with the exception of drinking water) within Wyoming. Because Congress has not authorized the BLM to regulate the same matters, BLM must defer to Wyoming's WDEQ on all primacy subjects and matters. Management Actions 1507, 1509 and 1511 state that lands within the RMP will be managed for multiple use under Alternative D. Draft EIS, pp. 2-23 to 2-24. Management for multiple use appears to recognize that responsible development can occur with appropriate environmental controls managed by WDEQ. Alternative C also aligns with Alternative D, stating that for the same Management Actions "all lands identified as having wilderness characteristics would not be managed to protect those characteristics". Id. Alternatives C and D properly recognize WDEQ's primacy by recognizing that it is possible and acceptable for multiple use to occur within the RMP. In contrast, Alternative B focuses singularly on conservation and does not allow multiple use, stating that BLM will "manage all lands identified as having wilderness characteristics specifically to preserve those characteristics." Draft EIS, CH. 2, p. 2-23. BLM's unilateral decision to adopt Alternative B, ignores Wyoming's primacy and ignores WDEQ expertise to permit, regulate and engage in enforcement action (when necessary) to protect human health and the environment. Alternative B fails to recognize WDEQ primacy and the role that Wyoming and WDEQ have played in successfully protecting human health and the environment. WDEQ recommends BLM clearly recognize the role that WDEQ permitting, regulation and enforcement has in ensuring the protection of human health and the environment as it was previously recognized in Alternative D. | The Draft EIS analyzed four valid alternatives, including Alternatives B and D. See Section 1.3 for the Planning Criteria and Appendix E for a list of laws and regulations that are compliant for all four alternatives. |
| 838 - General-NEPA Compliance | #13624-33 | Typographical Corrections The DEQ/AQD suggests that BLM correct references from "WDEP-AQD" to "WDEQ-AQD" (Ex. Pg P-9). | See changes to page P-9 and P-15 |
| 838 - General-NEPA Compliance | #13624-44 | Mineral Withdrawals Alternative B has significant implications for development and extraction of fluid and solid mineral reserves within the RMP boundary. The proposed mineral leasing restrictions, rights-of-way exclusions and management of lands to protect wilderness characteristics (or values) would effectively withdraw mineral reserves within defined resource boundaries, including the KSLA and the Coal Development Potential Area. This proposed action appears to be an incorrect application of the Federal Land Policy Management Act of 1976, as amended, (FLPMA) and ignores the requirements for lawful withdrawal of minerals under the Federal Mineral | See Glossary for definition of 'withdrawal', which applies to general land laws such as the Mining Law of 1872 and does not apply to fluid minerals or solid mineral leasing activities. |

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| | | Leasing Act of 1920, as amended, (FMLA). The withdrawal of minerals by implementation of the proposed management actions appear to exceed BLM's statutory authority under FLPMA and FMLA. In addition, WDEQ has primacy authority over solid mineral mining activities in Wyoming and BLM should have communicated its intent to withdraw solid mineral reserves and extraction opportunities, and coordinate any such actions, with WDEQ as a cooperating agency. | |
| 838 - General-NEPA Compliance | #13624-45 | Rock Springs Field Office Planning Area Pursuant to proposed Alternative B, the planning area will include approximately 278,000 acres that are located outside of but adjacent to the RMP boundary. Map 7. The proposed action would include approximately 10,000 acres within Carbon County, Wyoming. Id. BLM should identify whether that the area outside of the RMP is included in the Draft RMP/EIS and, if not, what management actions will apply to that area. | The RMP pertains only to the planning area within the Rock Springs Field Office boundaries (See Section 1.1 and Map 1-1). |
| 838 - General-NEPA Compliance | #13624-48 | General####The draft RMP is poorly organized and does not provide sufficient information or rationale, particularly as it relates to water quality. The Rock Springs Field Office (RSFO) should refer to the 2013 Lander RMP as an example of a well-written and organized RMP and should consider using this RMP as a template for revisions. The Wyoming Department of Environmental Quality Water Quality Division (WDEQ/WQD) has provided phrases and sections from the 2013 Lander RMP to help facilitate potential revisions. | Watershed and water quality affected environment is adequately covered in Section 3.4 of the DEIS and the analysis of water resources is covered in Section 4.5 |
| 838 - General-NEPA Compliance | #13624-49 | General####WDEQ/WQD is concerned that the RSFO did not do their due diligence collaborating with cooperating agencies. Table 1-5 indicates the last meeting with cooperating agencies was July 14, 2020, three years prior to the release of the Draft RMP/EIS. In addition to the following comments, WQD suggests the RSFO collaborate with WDEQ/WQD to ensure that water resources are sufficiently identified, potential impacts to water quality are sufficiently analyzed, and Wyoming Water Quality Rules are accurately represented. | Table 5-1 has been updated to include cooperating agency involvement since 2020. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. Watershed and water quality affected environment is covered in Section 3.4 of the DEIS and the analysis of water resources is covered in Section 4.5 |
| 838 - General-NEPA Compliance | #13624-54 | Glossary##General#Revise definitions and clarify terms that may have multiple meanings.#The RMP should only use defined terms where the context aligns with the definition. For example, the terms "discharge" and "runoff" are defined in the glossary as they relate to water quantity but are used when discussing both water quality and water quantity. For the glossary to be useful, both contexts should be addressed in the definition. Alternatively, the definitions should be removed to eliminate potential confusion. | Definitions of terms in the Glossary are provided to indicate how BLM interprets the terms as used in the EIS document. |
| 838 - General-NEPA Compliance | #13624-55 | Glossary###Addition#The RMP Glossary should describe SDWA Underground Injection Control (UIC) well classes, as outlined in Wyoming Water Quality Rules, Chapters 24 (Class VI Injection Wells and Facilities Underground Injection Control Program) and Chapter 27 (Underground Injection Control Program Class I and V Wells). | Definitions of terms in the Glossary are provided to indicate how BLM interprets the terms as used in the EIS document. If the terms are not used in proposed management actions within any of the four alternatives, no definition is provided. |
| 838 - General-NEPA Compliance | #13624-57 | Ch. 2#2-2#2.2.3#Alternatives Development Process.#The RMP Alternatives section does not include a thorough evaluation of the alternatives development process, nor does it identify the agency's preferred alternative. However, to be consistent with 40 CFR 1502.14, the RMP Alternatives section must provide a thorough evaluation of the alternatives development process and identify the agency's preferred alternative. | Section 2.2 presents an overview of the alternative development process. An overview of the alternatives is provided in Section 2.2.5, and the Agency Preferred Alternative is identified as Alternative B in the Abstract of the DEIS. |
| 838 - General-NEPA Compliance | #13624-58 | Ch. 2#General#2.2.3#Table Formatting.#To increase readability, the resource tables should be labeled and added to the list of tables. | Table of Contents has been updated as appropriate. |
| 838 - General-NEPA Compliance | #13624-59 | Ch. 2#General#2.2.3#Formatting.#The draft RMP does not clearly articulate priority goals and objectives. To increase readability, the RMP should: 1) Establish a priority goal with clear objectives of how the RSFO plans to meet that goal; 2) Incorporate headings to the management action section of the tables, such as "Actions Consistent Across All Alternatives" and "Actions That Are Different Across All Alternatives" to clearly articulate what management actions are the same or different across alternatives. An example of this format can be seen in Chapter 2, Table 2.11 of the 2013 Lander Field Office RMP. | Goals and objectives are discussed in Sections 2.2.2 and 2.2.5. Management actions consistent across alternatives are indicated individually in Table 2-1 |
| 838 - General-NEPA Compliance | #13624-100 | Ch. 4#4-29#4.5.1#General.#The draft RMP does not utilize a consistent format for each resource evaluated. To increase readability, WDEQ/WQD recommends the resource discussions follow the format established in the Air Quality section. Each resource should include: 1) summary of impacts, 2) methods and assumptions, 3) effects common to all alternatives, and 4) summary of impacts by alternative. | Methods and assumptions, and summary of impacts for each alternative are adequately covered for each individual resource in Section 4. |
| 838 - General-NEPA Compliance | #13651-1 | We pay particular attention to Alternative B (conservation), as it addresses the climate crisis and the federal responsibility to transition away from non-renewable resource extraction. The conservation proposed in Alternative B addresses piecemeal fragmentation and cumulative damage to important cultural and other resources but does not go far enough. The same topic is an issue the BLM should explicitly address for each proposed course of action. A hard look at the landscape-scale, climate-change and energy-transition issues it expects in each alternative should include quantitative assessments of impacts. In fact we believe BLM would do well to develop an alternative that provides an optimal approach to address landscape conservation and energy transition issues. | Cumulative impacts are discussed in Appendix T. Renewable energy is analyzed in Section 4.20. See also Air Quality Impacts for climate change analysis. |
| 838 - General-NEPA Compliance | #13651-7 | Historic trails, but also some other cultural, natural and recreational resources, extend across and beyond Field Office boundaries, county and even state boundaries. The EIS should discuss and the RMP should include commitments on coordination with other agencies and tribal governments to ensure management consistency and resource protection. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |

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| 838 - General-NEPA Compliance | #13651-11 | The plan is deficient in that it does not include recognition of climate change, landscape scale and a transition from non-renewable to renewable resources as national priorities (refer to EO 14008 January 27, 2021 "Tackling the Climate Crisis at Home and Abroad"). | Refer to the Executive Summary for adequate coverage of how BLM's planning within the DEIS will support guidance outlined in Executive Order 13990 on "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." Greenhouse gas emissions analysis is covered in Section 4.3 (Air Quality) of the document, and renewable energy is covered in Section 4.20. |
| 838 - General-NEPA Compliance | #13651-41 | Tribal interests are not restricted to "cultural resources." The entire discussion of tribal interests should be moved to Chapter 5 "Consultation and Coordination." We recommend a change in the title of Chapter 5.1.3 from "Native American Interests" to "Federally Recognized Tribal Government-to-Government Coordination." Tribes have interests in resource allocations other than those under NHPA, ARPA, NTSA and NAGPRA. BLM has responsibilities to federally recognized tribes that go far beyond cultural resource laws and regulations. | BLM has updated language as appropriate to be consistent with policy. |
| 838 - General-NEPA Compliance | #13658-1 | It is clear that BLM is attempting to use the RSFO RMP and the agency preferred alternative to focus solely on land preservation, eliminating oil and gas and other uses within the RSFO. In doing so, BLM fails to fulfill its statutory requirements to manage lands for multiple use and neglects its duty under NEPA to conduct complete and accurate analyses of the alternatives and the impacts. Instead of a reasonable approach that follows BLM's mandate for multiple use, the agency preferred alternative shifts future management of these lands to a single use. | Proposed management actions for oil and gas are covered under management actions 2200-2222. Analysis for oil and gas under each alternative is provided in Section 4.11. |
| 838 - General-NEPA Compliance | #13658-4 | The BLM must select an alternative that focuses on the multiple use mandate that protects truly sensitive areas through the use of various management actions such as timing restrictions, best management practices, no surface occupancy (NSO), or other available methods. BLM must also correct the inadequate, incomplete, and omitted analyses of various management actions within the EIS. In order to provide for required public comments, BLM must complete these through a supplemental EIS process. | See Section 1.4 for a list of planning criteria. Availability of data and incomplete information is adequately addressed in Section 4.2.2. See Table 5-1 for a list of public involvement events and section 5.2 for details of public participation in the RMP process. |
| 838 - General-NEPA Compliance | #13658-5 | On page ES-6, BLM states the primary impact to the landscape and associated resources and resource uses analyzed in the RMP would be from future proposed mineral development including oil and gas development and mining. This statement appears to discount the impacts that could occur from renewable energy development and alludes to the fact that the Reasonable Foreseeable Development Scenario (RFD) used in the EIS is severely outdated and is likely no longer appropriate for use in future decision-making. If future energy needs are fulfilled by renewable energy development, and especially solar development, they will have significantly more impact on the landscape than does oil and gas or other mineral development. A single 40-acre well pad, which could contain 24 or more oil/gas wells could develop 3,840 acres of minerals, with only a small amount of additional associated disturbance for roads or pipelines that could serve multiple well pads. There are single solar energy developments being considered currently in Wyoming that will utilize 4,000 acres or more for the solar panels, not including additional associated disturbance for roads, transmission lines, etc. BLM's comment on page ES-6 is an example of the inadequacy of the impact analyses completed by BLM in this RMP and EIS. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. Oil and gas affected environment is analysis is adequately covered in Section 3.15.1, with analysis for each alternative provided in Section 4.11. The existing affected environment for renewable energy is available in Section 3.21 and analysis for this resource under each alternative is detailed in Section 4.20. For existing conditions related to visual resource management, refer to Section 3.14, and for analysis of visual resource management under each alternative, refer to Section 4.15. |
| 838 - General-NEPA Compliance | #13658-6 | On page 1-4, one of BLM's planning criteria indicates that no decisions will be made relative to non-BLM administered lands. Unfortunately, due to Wyoming's land ownership patterns and especially in the area. of the checkerboard, any BLM decision will have significant impacts on non-BLM administered lands. BLM should acknowledge this fact and include or at least acknowledge this in the discussion of impacts related to management actions. The proposed ROW exclusion presents significant impacts to state and private lands throughout the RSFO. Especially in the checkerboard area, it will be nearly impossible to build a road, pipeline, or other infrastructure to access well locations, even if the wells are located on private or state lands. BLM must analyze these impacts to private and state lands created by BLM's proposed management actions, even if the ROW exclusion and the RMP does not apply to these lands. | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including addressing in footnote 6 that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). |
| 838 - General-NEPA Compliance | #13658-7 | On page 1-5 BLM indicates all proposed management actions will be based on current scientific information, research and technology, and existing inventory and monitoring information. BLM goes further to say a Mineral Potential Report, Cultural Resources Overview Report, Biological Assessment, Socioeconomic Baseline Report, and Reasonable Foreseeable Development Scenario for Oil and Gas will be completed and used as part of the RMP revision process. The BLM should include an RFD for Renewable Energy as any analysis of impacts is incomplete without understanding the potential for wind and solar energy projects within the RSFO. | Renewable Energy is authorized by BLM under a right-of-way and; therefore, impacts related to renewable energy can be found in the right-of-way analysis and proposed management action for all four alternatives. |
| 838 - General-NEPA Compliance | #13658-10 | On page 2-3, BLM states that closing the planning area to new leasing of federal minerals, specifically fluid minerals, was considered as a method for resolving conflicts with other resource values and leases. BLM further states that this action is not reasonable in light of the BLM's multiple use mandate outlined in FLPMA and the MLA and is inconsistent with policy objectives. Yet, this is exactly what the agency's preferred alternative is doing. The agency preferred alternative includes significant ROW exclusions, which results in BLM is effectively closing the entire area to new leasing of federal minerals. No operator would lease lands that are physically undevelopable due to the management actions proposed by BLM in Alternative B. With the ROW exclusions, BLM is not only closing federal lands from leasing, but will be significantly impacting state and private lands and also will be effectively eliminating oil and gas development on previously leased but undeveloped federal minerals. The ROW exclusion does so by eliminating the ability of any oil and gas operator to build infrastructure across federal lands where the ROW exclusion is applied. This ROW exclusion in the agency preferred alternative (Alt B) will almost entirely exclude any new ROWs in the north and south areas of the RSFO and will create isolated areas in the | BLM is in compliance with applicable laws, regulations and policies as covered in Section 1.4. Rights-of-way analysis is discussed for all four alternatives can be found in Section 4.19. |

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| | | checkerboard where infrastructure could be built within an isolated area, but exclusion areas would make it difficult to connect the isolated area to the outside world. These exclusions would eliminate the ability for oil and gas operators to utilize existing rights on currently leased lands and state or private lands because without a road to access the lease or pipelines to move produced oil and gas they cannot drill the well. BLM has created a management scenario that will result in no new leasing of federal minerals and will remove the ability to develop currently leased federal minerals. In their own words this violates BLM's multiple use mandate and is not a reasonable alternative. NEPA requires the analysis of reasonable alternatives and BLM must exclude Alternative Band re-analyze a new alternative in this Draft RMP. Management for preservation purposes is not managing for multiple use when you close all unleased areas to new leasing and ROW. | |
| 838 - General-NEPA Compliance | #13658-11 | The BLM creates management action 6001 related to carbon sequestration (CCS) in Table 2-1 but this is the only place in the document CCS is discussed. While there is a discussion about the Rock Springs uplift being suitable for CCS in the RFD, there is no explanation anywhere that provides reasoning for why Alternative B limits sequestration activities to the Rock Springs uplift. The RFD is also 13 years old and there have been significant advancements in knowledge and development of markets related to CCS since that time. BLM did not coordinate with the WDEQ or WOGCC in relation to CCS. Relatedly, there does not seem to be discussion of the effects of CCS projects or CO2 enhanced recovery projects on GHG emissions. While outdated, the RFD does identify 26 billion tons of CO2 storage potential. The Monell Unit CO2 flood in the project area also sequesters a significant volume of CO2 through enhanced oil recovery (EOR). It is estimated that approximately 90% of CO2 injected during tertiary recovery operations (EOR) remains in the ground. This does not appear to be accounted for in the GHG analysis. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. Management actions related to carbon sequestration are provided under Lands and Realty, as BLM currently authorizes carbon sequestration through the right-of-way process. |
| 838 - General-NEPA Compliance | #13658-12 | To cure the deficiencies related to CCS, the RSFO should prepare a supplemental EIS ensuring the following are completed: 1) coordinate with WDEO/WQD and WOGCC regarding CCS proposed management actions in the RMP; 2) if BLM decides to retain any management action that may limit CCS, provide justification for how limiting sequestration helps meet management objectives and how CCS potential in the management area will be impacted; 3) if RSFO decides to retain the Rock Springs Uplift as the sole area available for such activities, include a description and map illustrating the area designated as open to CCS; and 4) Evaluate and assess the impacts of the different alternatives on CCS projects, especially as it related to ROW exclusions preventing projects both inside and outside of the RSFO planning area by preventing roads and pipelines; and 5) Include the effects of enhanced recovery projects and CCS projects on GHG emissions for each alternative. | Management actions related to carbon sequestration are provided under Lands and Realty, as BLM currently authorizes carbon sequestration through the right-of-way process. |
| 838 - General-NEPA Compliance | #13658-20 | On page 4-11, BLM states that Alternative B most closely aligns with the Department of Interior's climate change priorities among all the alternatives. BLM should not be attempting to align its selection of alternatives with the DOI or this administration's climate change priorities, but with FLPMA and the MLA. These laws have multiple use mandates, which BLM is ignoring in its selection of Alternative B. | BLM is an agency of the Department of Interior. The Draft EIS, including all four alternatives, are in compliance with FLPMA and all other applicable laws, regulations, and policies (see Section 1.4 and Appendix E). |
| 838 - General-NEPA Compliance | #13665-3 | BLM's Draft RMP improperly does not contain sufficient substitution analysis-the analysis by which agencies provide full and complete information on environmental and socioeconomic impacts that would result from obtaining substitute oil and gas from elsewhere, if the production could not occur under the preferred alternative, to meet the public's existing and future energy demands. Although the agency in the Draft EIS boldly identifies the adverse consequences of oil-and-gas development under the development-friendly Alternative C, BLM fails to apply that critical thinking to its preferred Alternative B: it simply does not candidly analyze the true and complete costs of restricting oil-and-gas development under that alternative. | Impacts for each alternative relating to energy development are discussed adequately in Section 4.11, and socioeconomic impacts for each alternative are outlined in Section 4.22. Cumulative impacts for both resources can be found in Appendix T, with a full socioeconomic technical report in Appendix N. |
| 838 - General-NEPA Compliance | #13665-30 | Governor Gordon wrote that BLM's "hastily constructed" and "hamfisted" plan undermines a spirit of cooperation that has existed for years between the federal agency and the state. Id. at 2. The Governor said that it is "entirely incomprehensible" that BLM has chosen Alternative B-the alternative with the "most resource use restrictions and concomitantly with the largest socioeconomic impacts"-as the preferred alternative, even though it was "considered an outlier in previous attempts at issuing an RMP." | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13665-34 | Although BLM candidly acknowledges that Alternative B would severely constrain energy development projects-from both traditional and renewable sources-BLM's rationale for favoring that alternative does not support such a radical departure from current policy. For example, even though "[i]mpacts to wildlife and fisheries habitat from … renewable energy …would be the same as those described under Alternative A," id. at 4-67, Alterative B nonetheless restricts over two-million acres from renewable energy development-four to five times as many as are currently off-limits under Alternative A. See id. at ES-5. But if the "[i]mpacts to wildlife and fisheries" would be largely the same under Alterative B "as described under Alternative A"-the less-restrictive, "no action" alterative-then why close-off hundreds of thousands additional acres just to reach the same environmental outcome? Not only is BLM's "preferred alternative" illogical, but the agency's preference for that alternative is "arbitrary, capricious, an abuse of discretion" or "unsupported by substantial evidence" and therefore violates the Administrative Procedure Act. 5 U.S.C. §§ 706(2)(A), (E) | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. |

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| 838 - General-NEPA Compliance | #13665-35 | To the extent that there are "small, but important, ecosystems" that "serve as a biological oasis … relative to the vast expanses of sagebrush and prairie grass that dominate the landscape," as already discussed, BLM can-and should-carefully curate site-specific mitigation or restriction measures to avoid impacts to those limited areas. | Proposals for riparian and wetland resources under each alternative are outlined in management actions 4300-4303. |
| 838 - General-NEPA Compliance | #13665-38 | the benefits of technological advancements in horizontal drilling and hydraulic fracturing, would radically change the economic analysis in the Draft RMP and tip the scales in favor of more development-friendly solutions. The vast energy potential, if unleashed, would additionally economically benefit the State and American taxpayers, as well as enhance the nation's energy independence. Moreover, modern horizontal-drilling and hydraulic-fracturing technology allow larger areas to be developed with far-less overall surface impact (i.e., fewer well locations, facilities, roads, pipelines, etc.) than conventional vertical wells, which are no longer commonly used. Thus, reliance on data from past vertical-well drilling practices fails to account for the environmental benefits of modern development practices. | A full socioeconomic technical report is available in Appendix N. Impacts to energy and minerals, including the use of directional drilling, is covered in Section 4.11 of the DEIS. |
| 838 - General-NEPA Compliance | #13669-2 | According to the preliminary information given in the Draft RMP, the process to develop a new RMP began in 2011 with the initial scoping for a new, updated RMP. Given the timeframe between 20113 and 2023, the overall focus of commenting entities early in the process, we can see the potential for priority changes to have occurred from initial scoping to the release of the draft RMP. We recognize that with any development of an updated RMP, that significant factors that take large amounts of research, studies, and fieldwork, will by necessity take large amounts of time to complete. DCFB believes in this case, that too much time was involved in the development of the draft RMP | See Chapter 3 for description of adequacy of baseline data gathered in 2013. The purpose and need outlined in the Executive Summary and Section 1.2 adequately explain the planning objectives for the RMP. For a list of public engagement opportunities see Table 5-1. |
| 838 - General-NEPA Compliance | #13672-5 | The broad-brush approach of applying standard buffers to all sections of non-NHT trails found in management actions #7017-7022 goes against the Protocol already established between the BLM and Wyoming SHPO for management of cultural resources. | Wyoming SHPO was a cooperating agency involved in the development of the DEIS and all alternatives (see Section 5 for more details). BLM has the authority to manage public lands in accordance with FLPMA and all other applicable laws (see Appendix E). |
| 838 - General-NEPA Compliance | #13672-6 | The Executive Summary on pages ES-2 and ES-3 and in Planning Issues Page 1-3, Section 1.3 indicates that Greater Sage Grouse Resource management and Wild Horse management have not been incorporated into the Draft RMP. Also, the Purpose and Need section (Sections 1.2, 1.2.1, and 1.2.2) addresses "Numerous Records of Decision (ROD) for Programmatic EISs that have been completed or are ongoing," but omits greater sage grouse and wild horses. The Draft RMP has been in development since 2011 and the Greater Sage Grouse Management Plan has been in development since 2014. Both of these plans represent the management actions to be taken on large BLM land areas within the planning area. These plans should be evaluated together and not separately or separated in time. The public has the right to review the total impact of both of these plans. Ample time has passed for both of these plans to be part of the same Draft RMP. The public, including users of BLM lands cannot accurately evaluate the impacts of these plans in this way. A BLM News Release on February 3, 2014 indicated that work on the draft RMP would be put on temporary hold until the Wyoming Greater Sage-Grouse Land Use Plan Amendment and EIS could be completed and incorporated into the Rock Springs RMP. This omission is serious and not to be overlooked. FLPMA and NEPA provide the public with the right to review these plans and their benefits and impacts. Since this cannot be done in anything close to a comprehensive way, the Draft RMP is incomplete and should be withdrawn until both the Greater Sage Grouse Management plan and the Wild Horse Management Plan are incorporated into it. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). The RMP will be in compliance with NEPA and FLPMA (Section 1.4). |
| 838 - General-NEPA Compliance | #13681-5 | The EIS fails to consider the cumulative impact of eliminating additional wild horse HMAs in the state. Fifty percent (50%) of the original Congressionally designated wild horse habitat in Wyoming has been zeroed out or eliminated for wild horse use. Yet, the BLM continues to permit livestock grazing in these same areas. The EIS proposes to reduce by another 43% the public lands available to wild horses in the state. The cumulative impact of the proposal results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming. The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all public lands where BLM currently manages wild horses and burros. Currently, BLM only manages wild horses and burros on 64% of the original public lands identified by Congress for wild horse and burro habitat. That means since 1971 the BLM has cumulatively reduced wild horse and burro habitat by 37%. BLM has wiped out wild horses and burros from more than 1 of every 3 acres of public lands which Congress designated "principally" for wild horse and burro usage. The EIS fails to consider these cumulative negative impacts on wild horses and fails to take actions to mitigate these negative impacts. | Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern were addressed under a separate RMP Amendment and EIS (see Sections 1.3 and 2.2.5). See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." |
| 838 - General-NEPA Compliance | #13691-2 | According to the preliminary information given in the Draft RMP, the process to develop a new RMP began in 2011 with the initial scoping for a new, updated RMP. Given the timeframe between 20113 and 2023, the overall focus of commenting entities early in the process, we can see the potential for priority changes to have occurred from initial scoping to the release of the draft RMP. We recognize that with any development of an updated RMP, that significant factors that take large amounts of research, studies, and fieldwork, will by necessity take large amounts of time to complete. DCFB believes in this case, that too much time was involved in the development of the draft RMP. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. The purpose and need outlined in the Executive Summary and Section 1.2 adequately explain the planning objectives for the RMP. For a list of public engagement opportunities see Table 5-1. |

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| 838 - General-NEPA Compliance | #13691-4 | Alternative A seems to be localized to the "JMH Planning area". However, with the proposed new RSFO preferred Alternative B and Proposed Alternative D, hydrogeologic investigations would be required "where there is a reasonable expectation that surface waters are connected with geologic formations being dewatered." This situation being proposed for the entire EIS managed area is beyond the scope of the average resource user and beyond the capability of most natural resource professionals. | Management Actions 1323 addresses hydrogeologic investigations for water resources. Impacts to water resource impacts are further analyzed in Section 4.5. |
| 838 - General-NEPA Compliance | #13702-1 | Sage grouse management plan is not incorporated in the Draft RMP. The Executive Summary pages ES-2 and ES-3 and Planning Issues Page 1-3, Section 1.3 indicate that Greater Sage Grouse Resource management and Wild Horse management have not been incorporated into the Draft Resource Management Plan (RMP). Also, the Purpose and Need section (Sections 1.2, 1.2.1, and 1.2.2) address "Numerous RODs for Programmatic EISs that have been completed or are ongoing," but omit greater sage grouse and wild horses. Both resources represent potential significant risks and impacts to various groups of land users that cannot be evaluated accurately for this RMP when they have not been incorporated. Land users should have the right to evaluate these risks and impacts in aggregate as well as evaluate whether the multiple use principles of the Federal Land Policy and Management Act (FLPMA) are being upheld given that these planning efforts have been in development for over 10 years. As a case in point, a BLM News Release on February 3, 2014 indicated that work on the draft RMP would be put on temporary hold until the Wyoming Greater Sage-Grouse Land Use Plan Amendment and EIS could be completed and incorporated into the Rock Springs RMP. By not incorporating these two resources the BLM has changed course to the detriment of informed public participation. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). The RMP will be in compliance with NEPA and FLPMA (Section 1.4). |
| 838 - General-NEPA Compliance | #13702-2 | Much of the baseline data, analysis, and information dates to 2013 as stated on page ES-1. Examples of even earlier data can be found throughout the RMP. We recommend that BLM use more current data and analysis and bring the RMP up to date before it is finalized. Use of outdated information means that the RMP is neither accurate nor complete. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13702-16 | Importantly, the BLM's reasonably foreseeable development (RFD) forecast projects that during the 20-year life of the RMP, 6,719 new wells would be drilled in the RSFO, or an average of 336 wells per year. * This forecast is then used as the underpinning analysis3 to project outcomes from management actions enacted through the RMP, including air quality, surface disturbance, water quality, surface and ground water usage, cultural resources, ACEC relevance and importance criteria, invasive species, wildlife habitat, visual resources and others. Simply put, the RFD supported the assumptions of impacts for almost every resource analyzed in the DRMP. * In fact, only 18 wells were spud in FY2022. With this actual data, one would reasonably assume 360 wells would be drilled over the 20-year life of the RMP. * Assuming the 18 wells spud in FY2022 representation of an annual average, the BLM's outdated projection causes a severe overestimation of oil and natural gas development by 1,867 percent.* The BLM attempts to revise RMPs on a 20-year rotation, as data, techniques and priorities evolve. The foundation of this DRMP is vintage 2010 that is far off the mark and as such, it is evident the data and projections it incorporates are egregiously off and in need of an update. | See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 838 - General-NEPA Compliance | #13715-3 | 1. BLM's Use of Outdated Data Overstates Impacts of Oil & Gas Development, and Drove Adoption of Unnecessarily Restrictive Conditions. The proposed revisions to the RSFO Resource Management Plan have been in process for more than 12 years. Much of the underlying data and assumptions utilized in the pending Draft Environmental Impact Statement ("DEIS") were gathered early in this process, rendering it outdated and unreliable with the passage of many years. This is particularly true with respect to fluid minerals development. Section 3.15.1 of the DEIS reflects the dated nature of the data; the last drilling/leasing data is from 2010. The BLM's reasonably foreseeable development scenario ("RFD") forecast is a decade old, dating to 2013,1 and based on data from years before the publication date. Section 4.2.2 of the DEIS states that the best available information pertinent to 1 BLM Rock Springs, Field Office, Reasonably Foreseeable Development Scenario for Oil and Gas (September 25, 2013). | See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 838 - General-NEPA Compliance | #13715-4 | In other words, BLM based its actions across the range of alternatives on assumed future proposed mineral development for oil and gas. Those assumptions dated from 2013 for a document issued in 2023. This outdated RFD scenario used by BLM in these decisions had been proven entirely mistaken by actual events well prior to the date of the DEIS. Based off 2013 BLM RFD, all analyses in the DEIS were based upon an average of 336 new wells being drilled every year in the RSFO. In fact, only 18 wells were spudded in FY2022. With this actual data, one would reasonably assume 360 wells would be drilled over the 20-year life of the RMP, not the 6,700 wells projected in the RFD. Assuming the 18 wells spudded in FY2022 representation of an annual average, the BLM's outdated projection overestimates oil and natural gas development in the RSFO by 1,867 percent. BLM of course had this data available to it as of the DEIS, but did not use it. | The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years since the RFD, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13715-8 | The DEIS relies almost exclusively on closing areas to leasing as the means of protecting resource values. The BLM has at its disposal many tools to protect resource values well short of closing lands to oil and natural gas leasing. The BLM should instead specify appropriate lease stipulations, tailored to the resource values in the particular area, rather than imposing blanket closures. By failing to analyze whether tailored lease stipulations could protect such resource values, BLM has violated NEPA, and its decision to adopt the most rather than least restrictive means places it in violation of EPACT. | Specific management actions for each alternative, including various fluid mineral restrictions, are outlined in Table 2-1. Each of the four alternatives proposes a range of actions to protect various resource values, as indicated in the management action. The results of the analysis for all four alternatives can be found in Chapter 4. |

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| 838 - General-NEPA Compliance | #13720-1 | It is therefore necessary that the DRMP DEIS glossary provides a definition that is specific to, focuses on, or provides management direction for priority big game or other wildlife migration corridor habitats and the core, winter habitats they connect. We respectfully request that BLM adds to the Glossary a section we identify here in italics: "Ecological Corridor: An ecological corridor is a clearly defined geographical space that is governed and managed over the long term to maintain or restore effective ecological connectivity." (Hilty, 2020) | Definitions of terms in the Glossary are provided to indicate how BLM interprets the terms as used in the EIS document. |
| 838 - General-NEPA Compliance | #13720-2 | We respectfully request that BLM adds to the Glossary a section we identify here in italics: "Ecological Connectivity: 'Ecological connectivity' is the unimpeded movement of species and the flow of natural processes that sustain life on Earth. Without connectivity, ecosystems cannot function properly, and without well-functioning ecosystems, biodiversity and other fundamentals of life are at risk." (Hilty, 2020) | Definitions of terms in the Glossary are provided to indicate how BLM interprets the terms as used in the EIS document. |
| 838 - General-NEPA Compliance | #13720-3 | We respectfully request that BLM adds to the Glossary a section we identify here in italics: "Ecological network: A system of core habitats connected by ecological corridors, which is established, restored as needed and maintained to conserve biological diversity." (Hilty, 2020) | Definitions of terms in the Glossary are provided to indicate how BLM interprets the terms as used in the EIS document. |
| 838 - General-NEPA Compliance | #13720-7 | Chapter 4 Headers The headers on pages 4-6 through 4-180 are incorrectly labeled "Chapter 4 - Recreation." We request that Chapter 4 headers be edited and corrected according to the resource they refer to. | Chapter 4 headers have been corrected. |
| 838 - General-NEPA Compliance | #13721-10 | This section of the Draft RMP/EIS is very poorly done and quite inadequate since it used recreation visits from 2011 through 2015. This is an extremely small, very outdated sampling that does not reflect current recreation trends. Table N-5 on page N-15 of Volume 2 shows that Recreation visits in 2015 were 847,318 - nearly double what they were in the first three years of this 5-year period and 64% greater than the fourth year which was used for these recreation usage calculations. This particular outdated sampling range results in an artificially low 5-year average. The document also improperly minimizes the 2015 increase by stating "it is unknown if this trend will continue." Reality is that recreation visits to public lands have continued to grow since 2015 - and exploded to new highs during and following the COVID-19 pandemic. Additionally, it states on page N-16 of Volume 2 that the RSFO recreation specialist who estimated recreation visitation patterns in the area deemed FY 2013 visitation data as "sufficiently representative for the overall analysis." This is wrong. Data that is a decade old does not reflect 2020-era recreation visitation patterns on these or any public lands in Wyoming. This entire recreation usage and impact analysis must be thrown out and be redone. Page N-17 of Volume 2 specifically notes that the economic impact of OHV riding has received considerable attention. Yet, it summarily dismisses relevant OHV studies that have been conducted by the University of Wyoming (Foulke et al. 2006 and Nagler et al. 2013). It also fails to consider the newer 2021 Wyoming Comprehensive Off-Road Vehicle (ORV) Recreation Report (Bastian et al. 2022). Instead of using Wyoming data from these reports, the BLM wrongly used National Forest NVUM modeling with the Ashley National Forest, which is an inappropriate proxy. | The socioeconomic report not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 838 - General-NEPA Compliance | #13728-2 | 1) Fremont County Wyoming Land Use Plan 2004, 2) Lincoln County Comprehensive Plan 2006, 3) Sublette County Federal and State Land Use Policy 2009, 4) Sweetwater County Comprehensive Plan 2002 and 5) Uinta County Comprehensive Plan 2011. However, there is no meaningful discussion presented anywhere in the document that describes the management actions in detail nor did the BLM utilize the most recent county plans that were approved as follows: 1) Fremont County Natural Resource Management Plan 2021, 2) Lincoln County Natural Resource Management Plan 2021, 3) Sublette County Federal and State Land Use Policy 2021, 4) Sweetwater County Federal Lands and Resources Plan 2022 and 5) Uinta County Comprehensive Plan 2021. | See updated Table 1-2. |
| 838 - General-NEPA Compliance | #13729-1 | Alternative B with respect to rights of way (management actions 6200-6210) and its associated preferred map (Map 2-22) would essentially prohibit granting new rights of way in the planning area. It would also eliminate part of the existing energy corridor that Congress mandated be designated in Section 368 of the Energy Policy Act of 2005. See Management Action 6206 (which would "eliminate the existing corridor identified in WWEC ARMPA/ROD (2009) east of the Flaming Gorge I the planning area"). | See management actions 6200-6210 for those related to rights-of-way and corridors. Impacts to rights-of-way are analyzed in Section 4.19 "Lands and Realty." |
| 838 - General-NEPA Compliance | #13738-1 | The potential impacts of a 305% decrease in fluid mineral leases could have unknown impacts not only to the state of Wyoming but to the United States. The studies that were performed in 2011 are now far outdated and new economic and socioeconomic evaluations should be performed. For this reason, Alternative B should be discarded as the preferred alternative. Additionally this DRMP should be reevaluated with updated studies and evaluations of the current socioeconomic and economic impacts before any changes to the current RMP are made. | Appendix N provides a full socioeconomic technical report. See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13750-4 | By BLMs own admission, on page 1-5 under "Relationship to Other Plans," they declare that the " ... land use plans and amendments must be consistent with officially approved or adopted resource- related plans, and the policies and programs contained therein, of other federal agencies, state and local governments, and Native American tribes, so long as the guidance and RMPs are also consistent with the purposes, policies, and programs of federal laws and regulations applicable to public lands." BLM further explains on page 1-6 they acknowledge reviewing the following county plans for consistency: 1) Fremont County Wyoming Land Use Plan 2004, 2) Lincoln County Comprehensive Plan 2006, 3) Sublette County Federal and State Land Use Policy 2009, 4) Sweetwater County Comprehensive Plan 2002 and 5) Uinta County Comprehensive Plan 2011. However, there is no meaningful discussion presented anywhere in the document that describes the management actions in detail nor | See updated Table 1-2. |

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| | | did the BLM utilize the most recent county plans that were approved as follows: 1) Fremont County Natural Resource Management Plan 2021, 2) Lincoln County Natural Resource Management Plan 2021, 3) Sublette County Federal and State Land Use Policy 2021, 4) Sweetwater County Federal Lands and Resources Plan 2022 and S) Uinta County Comprehensive Plan 2021. | |
| 838 - General-NEPA Compliance | #13751-9 | The Draft RMP/DEIS is excessively vague and utilizes pervasive language that makes the evaluation nearly impossible. Due to this vague and pervasive language the BLM is granting themselves vast authority despite lack of legal authority. As an example, in the Draft RMP/DEIS Volume 1, words such as "may, could, should, would, and might" are used 8,404 times, whereas words like "will, must, and shall" are only used 501 times. Another example is that many of the management actions in Table 2 use 'would be applied' or 'would be applied as necessary.' There are many other examples of this type of pervasive language used throughout the document. For the reader and evaluator, this is unacceptable because there is no way to understand what the management action entails. Further, it allows BLM complete discretion in how to interpret and enforce the management action. These vague terms must be re-evaluated and more direct words must be used in order for a proper evaluation of the planning document. At a minimum BLM should do two things. First, clearly define the legal basis for the authority to take such actions. Second, clearly define the circumstances and conditions necessary to invoke these vague extensions of authority. In essence, BLM should identify the authority for including these terms and illustrate the "on the ground conditions' that would justify the exercise of the alleged authority. Otherwise, the reader has no basis to understand the consequences of the loose language employed. | BLM's statutory authority for land use plans is established under Sections 201 and 202 of FLPMA, as explained in the Purpose section of the DEIS Executive Summary. See the Introduction (Section 1) of the DEIS for further explanation of the purpose and need for the RMP, as well as a summary of land and mineral ownership and administrative jurisdictions within the planning area. |
| 838 - General-NEPA Compliance | #13751-10 | With this draft RMP/DEIS, BLM is applying management actions nearly universally across the entire RMP. BLM has heard from the public, cooperating agencies, and interested parties that this broad-brush approach does not meet the needs for the unique situations across the vast RMP area. The broad-brush tactic employed in the RMP is contrary to the rules, policy and guidance. The broad mandates of the RMP destroy the need for consultation and site-specific evaluation. The BLM needs to re-think the broad-brush approach of this RMP, go back to the planning stage and evaluate land planning and management decisions on a site-specific approach. As an example, the KSLA area should not be managed in the same way as the Greater Little Mountain Area (GLMA). Disregarding all special management areas, and just thinking about these two areas and comparing them, one would think the GLMA should have greater restrictions than lands inside the KSLA. However, under Alternative B, they are both right-of-way exclusion areas, under Alternative D, they are both right-of-way avoidance areas. Under both Alternative B and D, the GLMA is a Class III VRM, whereas the KSLA is a Class II VRM. Does this really make sense? With think not, and this provides a good example of how the broad-brush approach results in incorrect management in specific areas like the KSLA | See Section 2.2.2 for explanation of difference between management actions and implementation decisions. Note that this plan does not propose any implementation-level decisions. A comparison for rights-of-way management actions under each alternative can be found in MA#6200-6210. See also Appendix E and FLPMA for BLM's authority to prepare a land use plan. |
| 838 - General-NEPA Compliance | #13751-24 | No advance notice of the change to a greatly expanded Alternative B was provided to cooperators or the public. With publication of the Draft roughly 4 years later, we were confronted with a document with significant errors, insufficient analysis to support the new Preferred Alternative, etc. Cooperators were lulled into believing Alternative D would be the Agency's preferred option. BLM never involved the cooperators or anyone else for several years while knowing the original communication in 2019 fundamentally misled everyone. No analysis was undertaken to justify this new selection of an expanded Alternative B. Such action violates BLM's own procedural obligations and substantively violates FLPMA's multiple use analysis mandates. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. BLM will be in compliance with applicable laws, regulations and policies as covered in Section 1.4, including FLPMA. Adequate analysis for the impacts of each alternative is provided in Section 4. |
| 838 - General-NEPA Compliance | #13751-25 | BLM's Land Use Planning Handbook (H-1601-1), outlines 'collaboration' as "a process in which interested parties, often with widely varied interests, work together to seek solutions with broad support for managing public and other lands." Further, the Planning Handbook, Appendix F, Page 19 includes "Interested Groups" under Consultation and Coordination. The RMP fails to include any Consultation and Coordination with Interested Groups. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13751-26 | Genesis Alkali represent a significant interested party to the RMP but have never been consulted by the BLM regarding the RMP as an interested party. To our knowledge this is consistent with all mineral developers, in other words, BLM has never collaborated during this RMP process with its interested parties as required. The RMP Draft EIS Table 5-1. Public Involvement, Coordination, and Consultation Events lists several meetings and other events, but fails to list even one collaboration event. Per the Planning Handbook, BLM should collaborate with interested groups, and further the RMP must list which interested groups it did meet with in developing the RMP. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See Table 5-1 for a list of public involvement events and section 5.2 for details of public participation in the RMP process. Industry groups do not have cooperating agency status or "jurisdiction by law" but are welcome to participate in public scoping and public commenting. |
| 838 - General-NEPA Compliance | #13751-27 | There is no mention of when Alternative B was selected as the Preferred Alternative or how the alternative was discussed with any cooperating agencies, collaborators or key stakeholders. The BLM needs to revise this section to include how and when the Preferred Alternative was selected. This information must be included in the RMP. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. |
| 838 - General-NEPA Compliance | #13751-31 | The RMP is flawed at the outset, both substantively and procedurally. The RMP and DEIS completely ignores sage grouse even though the agency is aggressively working to expand sage grouse areas and protections. Many of which will directly impact the RMP area. The RMP explicitly disregards the wild horse management issue. Wild horses impact significant portions of the RMP. BLM's decision to ignore these matters seems inconsistent with NEPA and FLPMA and the BLM planning regulations. This is unacceptable because NEPA requires a comprehensive analysis with all cumulative issues and impacts. By pulling these important items out of the RMP there is no way to evaluate the cumulative impacts, restrictions, closures, withdrawals, and actions properly. BLM | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). The RMP will be in compliance with NEPA and FLPMA (Section 1.4). |

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| | | needs to finish its work on sage grouse and wild horses and then incorporate those actions into the RMP, not the other way around because the RMP is the umbrella planning document that must consider all other resources, impacts and actions. | |
| 838 - General-NEPA Compliance | #13751-37 | Most of the baseline data is significantly out of date. Page ES-1 of the Draft RMP/DEIS states "The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives." Similarly, per Page P-11 baseline emissions are over 10 years old. The baseline condition has changed significantly for most resources in the past 10 plus years. BLM admits the RMP/DEIS data is out-of-date but they plan to use trend analysis to justify the data is still appropriate. A few specific examples of how the plan is out of date and how trends are not appropriate are as follows: | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13751-40 | The RMP and DEIS fails to include significant projects. To be complete, these projects must be included in the analysis, for example: Sweetwater Solar DOI-BLM-WY-D04002017-0008-EA, Dry Creek Trona Project DOI-BLM-WY-D090-2022-0003-EIS and associated Project West, Transwest Express Transmission Line Project DOI-BLM-WY-0000-2010-001-EIS, Jackalope Wind Project DOI-BLM-WY-D040-2023-0132-EIS, Section 368 Energy Corridors DOI-HQ- 3500-2023-0001-RMP-EIS, Rock Springs Comprehensive Travel Rock Springs Wyoming RMP Revision & Transportation Management Plan (CTTMP). | See Appendix T for the cumulative impacts analysis for all four alternatives. The RMP does not propose any project level implementation actions, but comprehensive land use planning level management actions (See Planning Criteria in Section 1.4). |
| 838 - General-NEPA Compliance | #13751-44 | The Draft RMP/DEIS include the term "compensatory mitigation" in the glossary, although it is not used anywhere in the document. According to BLM https://www.blm.gov/policy/im-2019- 018, the compensatory mitigation policy is inactive. It is also no longer found at 40 CFR 1508.20 as referenced in the glossary. This is another example of how the Draft RMP/DEIS is out-of- date. | The definition provided in the Glossary is the CEQ definition (40 CFR 1508.20). See Management Action #13 in Chapter 2 for reference to BLM actions. |
| 838 - General-NEPA Compliance | #13751-45 | There is no way to use trend data to correct this type of outdated information. | See Section 1.4 for the Planning Criteria for this RMP level document. Also, see Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13751-47 | With the announcement of the BLM RMP, a geographic file (Google Earth, kmz file) was provided for Alternative B. The only kmz file provided is for Alternative B. In September 2023 and again in October 2023 BLM posted various mapping files (GIS file types such as gdb files and shapefiles). There have been no kmz files provided for the other Alternatives, and as such it is impossible to properly analyze the restrictions geographically for all alternatives. BLM must post the kmz files for all alternatives and provide adequate review time of those files for the public. | BLM posted the entire GIS database for the Draft EIS, including all four alternatives to the ePlanning website. Additionally, the Draft EIS contains more than 30 maps that cover all four alternative proposals. |
| 838 - General-NEPA Compliance | #13751-52 | Per the RMP Final Scoping Report, January 2012, Page 23"Lands covered in the RMP will consist of public land and split estate lands managed that BLM manages. No decisions will be made relative to non-BLM administered lands… The RMP will recognize valid and existing rights." The southern Wyoming RMPs (Rawlins, Rock Springs, and Kemmerer RMPs), present a unique situation with the checkerboard lands. Nationwide, BLM federal properties tend to be large blocks of federal land without comingled private and state estates. In contrast, the Rock Springs RMP is notably comprised of lands that are in a checkered pattern of ownership on every other section. As such, this RMP has a significant impact on the private and State estates because the land management plan and its restrictions inadvertently apply to the adjacent lands. This locks out private surface and mineral owners from their valid and existing rights. In the RMP, the BLM must address this conflict and provide the means for access to these existing estate holders. As stated in the 2013 Socioeconomic baseline report on Page 2-7 "Restrictions on development of federal mineral rights pertain to split estate as well as federal surface lands. Private surface landowners may lose surface lease revenue if the underlying federal mineral estate is closed or restricted." Loss of revenue on fee estate due to BLM restrictions is simply not acceptable. Further, per BLM Manual 6280 BLM must include provisions "to minimize adverse impacts, to the extent practicable, on adjacent landowners, users, and operations." in the land planning process. Adverse impacts to adjacent landowners, users, and operators in the checkerboard land ownership areas if access cannot be gained to those parcels due to right of way restrictions on the adjacent federal lands. | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including footnote 6 which states that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). As noted in the DEIS, valid existing rights will be maintained (Section 1.2.1, 1.2.2, 1.4, etc.). |
| 838 - General-NEPA Compliance | #13751-70 | According to the RMP Final Scoping Report, January 2012, "How will funding be addressed? BLM's response - "Funding to implement decisions contained in the RMP is not part of the RMP process but is instead managed through congressional budget decisions, followed by BLM state and local field office yearly budget planning." In reality BLM can't even maintain the needed staff to operate the current RMP, let alone an RMP with this many new stipulations. A recent review on Zip Recruiter (September 2023) indicates BLM has 20 open positions in Wyoming, of which at least 7 are in the Rock Springs Field Office. In addition to the RMP, the Department of Interior | Staffing of BLM personnel is outside the scope of this Resource Management Plan revision. See Section 1.3 for Planning Criteria of this land use planning process. |

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| | | published a proposed rule that will require BLM to act as a policing agency on public lands. This proposed rule will result in the need for even more BLM staff resources. The RMP needs to take these resources into account | |
| 838 - General-NEPA Compliance | #13751-73 | Appendix A--Project Design Features and Best Management Practices should not be mandatoryThe next to last sentence in A.1.1. states "The following would be applied as project design features for all solid minerals." Although the introductory section (A.1.1) does reference some opportunity for relief under certain conditions if the need is demonstrated in a NEPA compliant document. However, the first bullet in this section states: "Economic considerations, such as increased costs, do not necessarily require that a project design feature be varied or rendered inapplicable." BMPs should be applied on a case-by-case basis. They should not be mandated with a broad-brush approach. | See management action #4 "Apply best management practices (BMP) to authorized BLM activities on a case-by-case basis," and Appendix A. |
| 838 - General-NEPA Compliance | #13751-75 | Public Involvement. BLM has not involved the public in development of the RMP since 2020. The public had no involvement in developing or selecting the preferred alternative, as required by the FLPMA. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13751-76 | Stagnant Data: The RMP has been in preparation since 2011. Much of the baseline data, analysis, and information dates back to 2013 as stated on page ES-1. Examples of even earlier data can be found throughout the RMP. We recommend that BLM use more current data and analysis and bring the RMP up to date before it is finalized. Use of outdated information means that the RMP is neither accurate nor complete. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13751-97 | BLM has relied on outdated and inaccurate information. In the rush to complete the document BLM failed to rely on best science and current information. All of which is contrary to NEPA and BLM's own guidance. BLM acknowledges the underlying data analysis is dated but proceeds to rely on it based on trend data. As noted in our comments, current trends do not support the conclusions being made in the RMP/DEIS. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13751-99 | The document fails to fully inform the public and affected parties as to what the plan means on the ground. Either by design or due to a rushed timeframe, this document is: (1) vaguely written as to its implementation impacts on the public and affected parties and (2) poorly presented in terms of clear mapping and delineation of areas and applicable management actions. | Maps are provided in the Maps section of Volume 1 of the DEIS. See Section 2.2.2 for explanation of difference between management actions and implementation decisions. Note that this plan does not propose any implementation-level decisions. A comparison for proposed management under each alternative can be found in Table 2-1. |
| 838 - General-NEPA Compliance | #13751-100 | The document is inherently flawed based on the decisions to: (1) completely ignore pending sage grouse plans, even though BLM had previously announced it was delaying development of the RMP pending development of the sage grouse RMP amendments and (2) entirely ignore the impact of wild horses within the area as well as pending administrative actions related to the wild horse population. These two items are determinative of the treatment of wide expanses of the area covered by this EIS/Draft Management plan. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). |
| 838 - General-NEPA Compliance | #13751-101 | BLM did not meet the standard of "hard look" in preparing the Draft RMP. A "hard look" requires reliance on the best, most current data available. The "hard look" standard was intended not only to make sure the agency made an informed decision but to assure the public and affected parties were provided a clear understanding of the impacts of the Draft RMP. BLM has not taken a "hard look" at wilderness study areas and as a result those areas remain in limbo. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. Section 1.4 adequately addresses the planning criteria for Wilderness Study Areas (WSAs) and lands with wilderness characteristics. WSAs are congressionally-designated and their designation is therefore outside the scope of this RMP. Management actions for lands with wilderness characteristics are covered under MA#1500-1517. Additionally, Chapter 4 includes a thoroughly adequate analysis for all four alternatives. |
| 838 - General-NEPA Compliance | #13754-9 | Wyoming has a Constitutional responsibility to generate revenue for its public school system and state institutions by encouraging productive uses on state lands. These lands are very often encompassed by federal lands (very much so in the RSFO) and require access through those lands in order to be utilized. The BLM must respect this charge given to the state by its citizens and ensure that no actions taken within this RMP impede the state's ability to fund these activities. 43 C.F.R. § 1610.3-2 outlines the discretion afforded to states and a Governor's ability to make state policies known to the BLM through a consistency review. | See Section 1 for adequate coverage of what lands are and are not included in the planning area that would be affected by the proposed RMP. In accordance with NEPA and BLM policy, the Governor's Consistency review period will be initiated upon the publication of the Final EIS. |
| 838 - General-NEPA Compliance | #13776-1 | To be useful, this plan must be based on current visitation numbers with the best possible growth trends being used to plan for future impacts. The numbers in Table 4-11 (Volume 1, pages 4-233 and 4-234) assume a constant annual activity level, and the data used to develop this draft of the Rock Springs RMP appears to reflect a percentage increase in estimated visitation rather than an accurately recorded visitation statistic. Furthermore, the report appears to be based on data from 2014, before the COVID-19 pandemic which spurred the latest increase in visitation. Statewide, recreation visitation has increased significantly and continues to trend upward. We disagree, as is suggested on page ES-1, that visitation is a "minor condition" or that the "baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives." | The socioeconomic report not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. |
| 838 - General-NEPA Compliance | #13776-9 | The well-preserved condition and number of intact historic trail and wagon road miles in this Field Office warrant serious protection. Ideally and for continuity, the Rock Springs RMP would match the National Historic Trails protections outlined in the Lander Field Office RMP, with similar viewshed protections and NSO conditions. For Management Actions 7001-7006, Alternative D provides the most balanced approach, acknowledging that viewshed in certain parts of the National Historic Trails has been compromised. | Proposed management for National Historic Trails are covered in MA#5000-5013. Congressionally-designated National Historic and Scenic Trail management actions are described in MA#7000-7022. |

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| 838 - General-NEPA Compliance | #13776-12 | Other suggestions and edits to this draft EIS include: * The bookmark in the PDF of Volume 1 for Section 2.2.6 has Alternative misspelled. * Page 1-4, second to last sentence of 1.4 paragraph appears to be missing a space between planning and criteria. * Page 4-146, fourth full paragraph appears to be missing a space between potentially and reduce. * Page 4-197, fifth full paragraph appears to be missing a space between Oregon and "and." | The document will be edited for minor typos and grammatical corrections as needed. |
| 838 - General-NEPA Compliance | #13787-7 | Additionally, restricting access to the federal coal resource negatively impacts ongoing efforts of the University of Wyoming and numerous Wyoming companies working in the emerging coal-to-products field. General Comments on the Draft RMP State agencies have primacy under other federal agencies to regulate mining and management of many of the resource areas with Management Actions in Chapter 2, Table 2. For example, the WDEQ-LQD has jurisdiction over mining and mine permits, WDEQ-AQD has jurisdiction over air quality standards, WDEQ-WQD has jurisdiction over surface water and groundwater, and WDEQ-HSWD has jurisdiction over hazardous waste. BLM requirements in the Management Actions must not be in conflict with the jurisdiction of other state and federal agencies enforcing other laws. | Refer to the Federal Land Policy Management Act for information about BLM's jurisdiction over public lands. See Appendix E for additional information about laws and regulations. |
| 838 - General-NEPA Compliance | #13787-8 | The Draft RMP has been in preparation since 2011. Much of the baseline data and analysis is based on data and information that is in some cases over a decade old. After spending nearly $9 million dollars it seems that an RMP citing stagnant data will need to be updated in less than a decade. We suggest the BLM make the effort to bring the Draft RMP up to date prior to finalizing. Page ES-1 of the Draft RMP/DEIS states "The summary of the Analysis of the Management Situation (AMS) was prepared in accordance with 43 CFR 1610 and was completed in August 2013. The AMS is accurate with the analyses of the inventory, and for the basis of formulating reasonable alternatives as described in 43 CFR 1610.4-4. Although some data has been updated in response to changing conditions (ex. air quality emissions and reasonably foreseeable development), most of the baseline data gathered from 2013 has been kept static for comparative analysis purposes. Even if minor conditions have changed for an individual resource in the intervening years since the AMS, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives." Similarly, per page P-11 baseline emissions are over 10 years old. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13787-9 | Similarly, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Further, much of the data in the report is even older. For example, page 5-18 states that "The occurrence of REEs in the RSPA is described in Chapter 3.2.7. There are no known deposits of REE in the RSPA. To date there has been no systematic sampling for or evaluation of REE in the RSPA. However, the WSGS is currently conducting a statewide study, scheduled for completion in mid-2013, to identify, characterize and catalog REE deposits throughout the state." This report and several others related to REEs has been completed and must be incorporated into the RMP for completeness. Finally, as another example, the Solid Mineral Occurrence and Development Potential Report is dated August 2012. Page 5-24 states that "Although trona (soda ash) market demand decreased during the global economic slowdown starting in 2008, causing decreased prices and production, the global soda ash industry is showing positive signs of recovery. The 2010 production level at more than 16.5 million tons was up by more than 2 million tons over the 2009 level. In addition, several substantial soda ash price increases have already occurred in 2012. Along with the recovery has come interest by several producers in the possibility of future additional leasing adjacent to existing mines although no firm proposals have been submitted to date. It is expected that during the planning period, current mines or expansions to those mines could accommodate currently projected future demand increases and no new mines will be proposed. However, if the soda ash market undergoes a significant rebound during this time, the situation could change. In addition to new leasing to expand existing mines, new leasing and proposals for in situ recovery could be submitted for BLM consideration." This information is like reading from a history book. The information is outdated on all accounts and must be updated before the RMP can be considered complete or accurate. | The socioeconomic report not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013, which can be used for comparison purposes among the different alternatives. |
| 838 - General-NEPA Compliance | #13787-10 | BLM was going one direction on Greater sage-grouse and then with this draft RMP/DEIS they completely switched directions. This was a complete surprise to the public and is unacceptable. All news releases from the BLM regarding this RMP indicated it was going to incorporate Greater sage-grouse planning into the RMP, but with this recent August 2023 release have now indicated no Greater sage-grouse planning will be incorporated into the RMP. This is unacceptable and BLM must incorporate Greater sage-grouse planning and restrictions into this RMP. In particular, Appendix T, the cumulative impacts analysis section is flawed by not including Greater sage-grouse. The plan cannot be adequately reviewed without having Greater sage-grouse planning included. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. |
| 838 - General-NEPA Compliance | #13791-3 | the economic analysis is based on a very dated reasonable foreseeable development analysis which was released in 2014 with minor updates in 2016. The RFD has a ten-year study period commencing in 2016; as of the date of availability of the draft EIS, this "study period" is two-thirds over. There is no attempt to compare the development that was "foreseen" with what actually happened. This is a fatal flaw given that the period of 2014 to the present day saw wild fluctuations in the global oil and gas market, global demand, and the incredible rise of electric vehicles and renewable energy. This out-of-date analysis1 should not form the basis of any decision. | The socioeconomic report not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013, which can be used for comparison purposes among the different alternatives. |

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| 838 - General-NEPA Compliance | #13791-4 | The only basis for rejecting the protections available under Alternative B is the potential for adverse economic impacts. However, given the lack of defensible economic data and analysis, decisions based on economic grounds are entirely speculative and would render the decision arbitrary and capricious, something that planning guidance and court decisions prohibit. | The socioeconomic report not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if conditions have changed in one sector in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013, which can be used for comparison purposes among the different alternatives. |
| 838 - General-NEPA Compliance | #13793-5 | Alternative B would limit the domestic ability to support responsible natural resource development, and it does so predicated on a flawed and out-of-date Reasonable Foreseeable Development analysis. This analysis that overestimates emissions levels drastically by relying on historic levels of production that are barely a tenth of current production. | The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13794-1 | Page ES-1 Last paragraph: "baseline data gathered from 2013 has been kept static." This data does not reference the data available through the Wyoming Landscape Conservation Initiative. The USGS Geological Survey Science for the "Wyoming Landscape Conservation Initiative-2011 Annual Report, Open-File Report 2013-1033 is available and should be reviewed and referenced along with subsequent reports. These reports are available through the WLCI website and the WLCI coordination team. Therefore, this document did not use the best available data. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13795-2 | Solvay believes the Draft RMP sets another negative precedent in the process of developing a Resource Management Plan. As WMA, and others have correctly noted, the BLM-WY relied on outdated studies, analysis, and data to inform the Draft RMP. Solvay echoes concerns with BLM-WY's use of information that is over a decade old and in some cases noticeably inaccurate to justify and guide the Draft RMP. When developing plans for responsible land use it is crucial for the government to use information that is as current as possible. Noticeably inaccurate data, such as the state of the soda ash industry, calls into question whether the other materials are still accurate and relevant. Solvay believes that the decision not to update the studies sets a dangerous precedent for future plans. | See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13795-5 | The Preferred Alternative is further weakened by serious legal questions around BLM-WY's authority to alter portions of the energy corridors to exclusion areas as the corridors were designated on federal lands under Section 368 of the Energy Policy Act of 2005. Solvay concurs with WMA's comments on the legality of the BLM-WY Preferred Alternative and urges BLM-WY to withdraw it in favor of continuing exclusions under Alternative A. | Please refer to the Federal Land Policy Management Act for BLM's authority to manage public lands. See Section 1.4 for a list of planning criteria, including compliance with FLPMA and all other applicable laws, regulations, and policies. |
| 838 - General-NEPA Compliance | #13795-8 | The lack of consistent engagement with stakeholders since 2020, further erodes trust in BLM-WY's ability to honor the state's perspective on land and resource management. Solvay believes BLM-WY's approach to the Draft RMP would drastically, and inappropriately, expand the federal role in managing Wyoming's key resources without a commitment to transparent collaboration. This precedent naturally raises concerns over the approach to future Resource Management Plans, specifically when considering the implications on the neighboring Kemmerer Field Office. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. BLM will be in compliance with applicable laws, regulations and policies as covered in Section 1.4. Decisions regarding the Kemmerer RMP planning process are outside the scope of this EIS. |
| 838 - General-NEPA Compliance | #13806-4 | To improve upon the language proposed in the draft, and in support of my Tribal member friends and colleagues, I recommend the BLM include improved direction on collaborating with Tribal Governments in co-managing important landscapes, as opposed to simply considering Tribal perspectives. This is in alignment with recent national-level direction from both the Executive Office and the BLM. (In reference to Management Goals HR-03, 14, 15, & 16 and any associated Management Actions including but not limited to MA's 5000, 5001, 5010, and 5200 as per BLM Permanent Instruction Memorandum 2022-011). This collaboration should extend to knowledge sharing. Traditional knowledge is not to be shared or incorporated into BLM databases unless done so in collaboration with Tribal Nations, with their approval, and in a manner such that it is "utilized to advance Indigenous aspirations for collective and individual wellbeing". (In reference to RMP Management Goals HR-14 & 15 and ssociated MA 5200 under Alternative B as per 2022 OSTP-CEQ Memorandum on Indigenous Knowledge). | Any proposals for co-management with Tribal Nations is an implementation action that would not be precluded by any of the four alternatives in this EIS. See section 5 regarding public involvement and government consultation and coordination in developing all alternatives, including government-to-government consultation with Native American tribes. |
| 838 - General-NEPA Compliance | #13811-1 | All of these efforts culminated in BLM publishing a "Notice of Intent to prepare an Environmental Impact Statement for the Dry Creek Trona Mine Project" in April 2022.1 Since that time, Pacific has been working closely with the BLM and its third party contractor to prepare the Dry Creek Project EIS. Pacific anticipates the publication of the Dry Creek Project Draft EIS for public comment in the first quarter of 2024. Throughout all of this close coordination, Pacific was never alerted to the potential that the BLM was considering a resource management plan alternative that would be so restrictive that Pacific could be forced to reevaluate the placement of key infrastructure for the Dry Creek Project. | The Draft EIS has been under development since 2011. The BLM is aware of ongoing review of all rights-of-way applications that have been received by the BLM for the RSFO area and has identified any conflicts with the four alternatives proposed, notifying applicants as appropriate. |
| 838 - General-NEPA Compliance | #13826-3 | The Draft Rock Springs RMP is ambiguous and difficult to totally understand the impact this would have on these lands and waterfronts of the Green River and Flaming Gorge Lake Recreational areas as well as the areas southwest of Green River near McKinnon, Burntfork, and Cedar Mtn. The lack of information on actual roads or areas to be closed or restricted and their locations makes it impossible to fully understand how this will impact these areas. This needs to be not only clarified but the local people need to have a larger say on this issue. | As stated in MA#6607, see Maps 2-25, 2-26, 2-27, and 2-28 for OHV area designations by alternative. Map 2-25 shows existing designations under the current Green River RMP. Route-specific travel and transportation management decisions are outside the scope of this DEIS. |

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| 838 - General-NEPA Compliance | #13826-30 | I do not feel that the Rock Springs RMP is written clearly or that it defines what restrictions to "Right- of-Ways', or 'Off Road Use' will be for these types of residential uses. It seems to detail more the restrictions to oil and gas, utilities, building new roads, disturbing the soil or use of equipment and building structures than it does to residential, recreational and agricultural uses. Maybe it does but the plan is set up such that this is not clearly conveyed. The only thing I located that helps me see what might affect the land and roads that are my main concern for me to access the land I am interested in is the maps that show 'Right of Way' restrictions. This source doesn't include the actual roads or property that will be restricted. Again, it is incomplete and needs more information so this is another reason to reject Alternative B. | The Draft EIS evaluates four full alternatives that detail management actions for all resources and resources uses within the field office jurisdiction. There is no Travel Management Plan proposed and specific travel and transportation management decisions are outside the scope of this Draft EIS. |
| 838 - General-NEPA Compliance | #13839-3 | Since the vast majority of public input took place nearly 10 years before the BLM issued its Conservation and Landscape Health proposed rule which indicates that dramatic changes are forthcoming to the management of ACECs, we ask - how could the Draft EIS adequately reflect the current comments and sentiment of the public? Even in the extremely unlikely event that comments urged the FO to designate more than 1.5 million acres as ACEC, they couldn't have known that the BLM would seek to change how ACEC are managed a decade later. | The specifics of the new Conservation and Landscape Health Rule are outside the scope of this Draft EIS; however, the ACEC analysis and proposals in the Draft EIS are compliant with all BLM policy and regulations. ACEC reports for each individual ACEC are provided in Appendix C. |
| 838 - General-NEPA Compliance | #13848-7 | Alternative B's imposition of ROW exclusion areas and other restrictions on BLM lands within the checkerboard, thus preventing renewable energy development on both public and private lands, directly contradicts Executive Order 14008 (January 27, 2021), in which President Biden directed BLM to "increase renewable energy production on (public) lands." | Analysis of impacts to renewable energy are addressed in Section 4.20 including analysis assumptions that take into account BLM's policy to encourage development of renewable energy in acceptable areas. |
| 838 - General-NEPA Compliance | #13848-8 | Alternative B's imposition of ROW exclusion areas and other restrictions on BLM lands within established Section 368 energy corridors, which may limit the ability of Overland to obtain gen-tie transmission siting to serve its potential customers, violates the Enery Policy Act of 2005, which directed the establishment and maintenance of such corridors, and which are present in the RSFO pursuant to prior final RMP. | Analysis of impacts to renewable energy are addressed in Section 4.20 including analysis assumptions that take into account the Energy Policy Act of 2005. |
| 838 - General-NEPA Compliance | #13859-5 | Section 4.22.2 of the DEIS describes the methodology for determining the direct economic impacts of resource uses on BLM-administered land. Table 4-11 details the potential outputs from resources including livestock grazing, extractable material development, and recreation. BLM should include assessment of the positive economic impact of renewable energy development, including transmission lines, for each of the alternatives. | Renewable Energy is authorized by BLM under a right-of-way and; therefore, impacts related to renewable energy can be found in the right-of-way analysis and proposed management action for all four alternatives. |
| 838 - General-NEPA Compliance | #13859-6 | While the Draft RMP acknowledges several regulatory changes to implementation of the National Environmental Policy Act, it fails to acknowledge the changes in public law, which were signed into law by the President on June 3, 2023 - months prior to the publication of the draft plan. Aspects of these changes in law directly impact the BLM's programmatic effort - namely 42 USC 4336b relating to time periods. The scoping period for this draft RMP began on February 1, 2011 and ended on April 4, 2011. The law states that when an agency prepares a programmatic environmental document for which judicial review is available, the agency may rely on analysis included in the programmatic environmental document in a subsequent environmental document for related actions within 5 years without additional review of the analysis, unless there are substantial new circumstances or information. After 5 years, the law states that an agency may rely on analysis "so long as the agency reevaluates the analysis in the programmatic document" to ensure reliance on the analysis remains valid. | The BLM is in compliance with all applicable laws and regulations. See Appendix E. |
| 838 - General-NEPA Compliance | #13859-7 | BLM should expand the cumulative effects analysis to be more comprehensive and include the potential contribution of renewable and carbon-free energy development, generation, and transmission. | A full cumulative impacts analysis is available in Appendix T. |
| 838 - General-NEPA Compliance | #13859-8 | BLM should expand the assessment of potential irreversible and irretrievable commitment of resources and comprehensively consider the benefits of renewable energy development and its associated infrastructure with respect to of the preservation-focused land management under alternatives B, C, and D. | See Appendix T.2 for a discussion of irreversible and irretrievable commitments of resources. |
| 838 - General-NEPA Compliance | #13880-7 | The second item is the need for an updated Reasonably Foreseeable Development (RFD) analysis for oil and gas operations. The data to be analyzed under any alternative in the EIS is grievously out of date, and thus just plain wrong. To borrow from the Wyoming Oil and Gas Conservation Commission (WOGCC) comments, "The analysis itself states, 10 years ago, 'It is difficult to predict what will occur a few years into the future, but it is even more difficult to predict 20 years ahead.' (Pg 92)". We cannot support a document that attempts to make such broad policy decisions based on outdated and easily refuted data. WOGCC data recorded oil production in the RSFO to be approximately 815,000 bbls in 2022, compared to the RFD's prediction of 4,800,000 bbls. There are no general trend lines that are acceptable for the BLM's analysis of this scale when the data used is so far removed from reality. The technical advances in drilling practices, such as horizontal drilling and, consequently, less surface disturbance, should not be ignored. I direct BLM to the WOGCC and industry comments for further detail on the discrepancy of this analysis | The RFD is not a goal or intended outcome, but rather a baseline measurement tool for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13880-23 | It is also important that the BLM respects valid and existing rights within the RSFO. While this has been stated as being the status quo multiple times, it is worth repeating. Indirect management actions can easily hinder the full potential of the state to utilize our state trust lands, for private developers to fulfill their leases, and grazing permittees to support their operations. Existing Records of Decisions from the BLM or other federal agencies, | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including addressing in footnote 6 that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). As noted in the DEIS, valid existing rights will be maintained (Section 1.2.1, 1.2.2, 1.4, etc.). |

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| | | which have already undergone the NEPA process, need to be allowed to proceed unobstructed and unchanged by the completion of this RMP. | |
| 838 - General-NEPA Compliance | #13880-24 | Similarly, state lands are constitutionally required to provide the highest and best use for the benefit of the State's beneficiaries. This requirement was a condition to Wyoming's admission into the Union. Alternative Bis in stark contrast to this directive. Existing and future uses are a matter of state direction, through the legislature and the Board of Land Commissioners. Designations of surrounding, adjoining, or nearby BLM lands may impede that mission or prevent the State from meeting its fiduciary duties with respect to its state trust lands.Inconsistent management practices could displace existing state lessees, permittees, and easement holders, leading to the Wyoming Office of State Lands and Investments' (OSLI) decreased ability to optimize revenue generation for current and future generations. Reviewing OSLI's comments in detail is critical to the State of Wyoming and our ongoing partnerships with the BLM. | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including footnote 6 which states that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). As noted in the DEIS, valid existing rights will be maintained (Section 1.2.1, 1.2.2, 1.4, etc.). |
| 838 - General-NEPA Compliance | #13880-25 | In addition to achieving consistency with other federal decisions and State policies, the BLM must align with local county natural resource management plans more closely. Counties, conservation districts, municipalities, and other local government entities cannot support management actions that have negative impacts to their services and communities. These are the local partners that assist the BLM on a day-to-day basis and ensure beneficial relationships continue from administration to administration. The BLM states on page 1-5, regarding their "Relationship to Other Plans" that, " ... land use plans and amendments must be consistent with officially approved or adopted resource-related plans, and the policies and programs contained therein, of other federal agencies, state and local governments, and Native American tribes, so long as the guidance and RMPs are also consistent with the purposes, policies, and programs of federal laws and regulations applicable to public lands." However, all five of the affected county land use plans listed are well over a decade out of date. The Wyoming County Commissioners Association assisted these five counties in analyzing the draft RMP against the current county land use plans and have submitted those as comments to the BLM. The BLM must take the necessary time to review its consistency with the provided data. | See updates to Table 1-2. |
| 838 - General-NEPA Compliance | #13880-26 | I understand the timeline and the work that has been devoted to developing this RMP, but the desire to proceed should not overshadow the need for good data. There is a definite need to update BLM RMPs to include changing technologies and updated methodology. However, given the gaps in analysis and the need to incorporate the latest science regarding wildlife, reasonable foreseeable development, and socioeconomic impacts, it is necessary for me to request the BLM issue a supplemental EIS for this draft RMP. The success of the efforts of everyone involved, from 2011, through this comment period, and onto the development of the Record of Decision, is dependent on the quality of this draft document. This RMP is too important to have its impacts go unexamined. If it is worth doing, it is worth doing well. The BLM will find many interested and committed cooperators and partners in developing a worthwhile product. | Neither the RFD nor the Socioeconomic report are goals or intended outcomes, but rather baseline measurement tools for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. |
| 838 - General-NEPA Compliance | #13900-1 | "address changing needs of the planning area by updating information" and that the need for revising the Green River RMP is the "result of considerable changes within the planning area since 1997." The public scoping process was performed over 11 years ago. Wyoming's outdoor recreation needs have drastically changed since that time. Motorized recreation has experienced unprecedented growth and a surge in popularity. With the incredible changes to recreation needs and awareness that have taken place in just the past 3 years because of a worldwide pandemic which led to a renewed interest in outdoor recreation by the American public, data collected over a decade ago cannot appropriately or effectively inform a resource management plan revision. | A recreation report for analysis is provided in Appendix S of Volume 2. See Chapter 3 for a description of adequacy of baseline data for comparison analysis purposes. |
| 838 - General-NEPA Compliance | #13905-2 | While the Draft EIS provides lists of different categories of impact by resource, it fails to quantify the direct and cumulative impact of the multiple types of impacts authorized under the plan. See, e.g., effects on water quality at 4-33. It is not enough to provide a list of impacts; cumulative effects on individual resources must be analyzed and disclosed. | A full cumulative impacts analysis is available in Appendix T. |
| 838 - General-NEPA Compliance | #13906-1 | BLM further explains on page 1-6 they acknowledge reviewing the following county plans for consistency: 1) Fremont County Wyoming Land Use Plan 2004, 2) Lincoln County Comprehensive Plan 2006, 3) Sublette County Federal and State Land Use Policy 2009, 4) Sweetwater County Comprehensive Plan 2002 and 5) Uinta County Comprehensive Plan 2011. However, there is no meaningful discussion presented anywhere in the document that describes the management actions in detail nor did the BLM utilize the most recent county plans that were approved as follows: 1) Fremont County Natural Resource Management Plan 2021, 2) Lincoln County Natural Resource Management Plan 2021, 3) Sublette _County Federal and State Land Use Policy 2021, 4) Sweetwater County Federal Lands and Resources Plan 2022 and 5) Uinta County Comprehensive Plan 2021. | See updates to Table 1-2. |
| 838 - General-NEPA Compliance | #13910-3 | BLM should allow other organiztions to be involved on a contract basis for both field evaluations (a factor that seems to have very limited personnel) and carrying out any aproved projects that come out of them. | Implementation actions, including site specific field evaluations, are outside the scope of this Draft EIS for land use planning. |
| 838 - General-NEPA Compliance | #13910-6 | More educational opportunities should be developed by the BLM to allow the pubic to understand why certain things are needed and done in regards to habitat and wildlife needs. | The development of educational programming is outside the scope of this Draft EIS. Management actions for wildlife and fisheries are covered in MA#4400-4436. Affected environment for wildlife and fisheries habitat is |

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| | | | adequately explained in Section 3.7, and a detailed analysis of the impacts of each alternative on wildlife and fisheries habitat is provided in Section 4.7. |
| 838 - General-NEPA Compliance | #13911-16 | DEIS Fails to Address Consistency with Local Plans Pursuant to FLPMA, the BLM must ensure that "land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act." 43 U.S.C. 1712(c)(9) (emphasis added). BLM must keep apprised of state and local land use plans, give consideration to such plans, and to assist in resolving inconsistencies between Federal plans and local government plans. 43 C.F.R. §§ 1610.3-1(a)(1)-(3), 1610.3-2(a). The regulations require federal agencies to address how inconsistencies between a proposed action and local lands use plans are addressed and resolved. Am. Motorcyclist Ass'n v. Watt, 534 F. Supp. 923, 936 (D. Cal. 1981). NEPA further requires the BLM to discuss within the EIS any inconsistencies of a proposed action with State and local plans, and the extent to which such inconsistencies could be reconciled. 40 C.F.R. §§ 1502.16(a)(5), 1506.2(d). It is not enough for the BLM Field Manager to state that the consistency review will occur after the FEIS has been filed, because NEPA requires that the consistency discussion be included within the EIS. See Quechan Tribe of Ft. Yuman Indian Reservation v. U.S. Dep't of the Interior, 927 F. Supp. 2d 921, 946 (D. Cal. 2013) (BLM's consistency analysis was sufficient due to the FEIS containing a "General Plan Policy Consistency Analysis which addresses the consistency between the Project and local regulations and law."). | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 838 - General-NEPA Compliance | #13912-2 | The Draft EIS fails to analyze and address the impacts that the proposed federal actions within the checkerboard would have on the rights of private surface and mineral estate owners to access, develop, and or use, their surface and mineral estates and whether the BLM's proposed restrictions within the checkerboard amounts to a taking without just compensation in violation of the U.S. Constitution. | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including footnote 6 which states that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). As noted in the DEIS, valid existing rights will be maintained (Section 1.2.1, 1.2.2, 1.4, etc.). |
| 838 - General-NEPA Compliance | #13912-4 | The Draft EIS fails to analyze and address the negative effects, including socioeconomic, that the imposition of new Rights-of-Way restrictions within the Rock Springs Field Office checkerboard area would have on private and public lands in neighboring areas, Southwestern Wyoming and Wyoming as a whole. An EIS must analyze all impacts, direct and indirect, caused by an action, and the measurement area cannot be limited to an arbitrarily determined 'field office' boundary line. The full effects of any action taken along or within the RSFO boundary lines, must be analyzed in the EIS. BLM cannot ignore, fail to investigate, or decline to address these issues because they are across an artificial boundary line. The EIS made no investigations, analyses, or conclusions of the various alternatives and their broader socioeconomic impacts. | Table 1-1 describes land and mineral ownership and jurisdictions within the Rock Springs planning area, including footnote 6 which states that impacts to areas with private or state ownership will be discussed in the cumulative impacts analysis section (Appendix T). As noted in the DEIS, valid existing rights will be maintained (Section 1.2.1, 1.2.2, 1.4, etc.). For a full socioeconomic report, see Appendix N. |
| 838 - General-NEPA Compliance | #13918-2 | We vehemently disagree with the BLM's selection of Alternative B as the Preferred Alternative and fail to understand why the BLM selected an alternative that differs so substantially from the compromise that interested parties worked toward for years. While the Utah Farm Bureau has not been involved in development of the RMP until now, we closely watched the efforts of the State of Wyoming, affected Wyoming communities, the Wyoming Farm Bureau Federation, and the Wyoming Stock Growers Association throughout the process. Promoting the most extreme and restrictive alternative after 12 years of discussions sends the message that BLM ignores local voices and that there is little value in states and local governments being actively involved in planning processes. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13919-2 | The Draft RMP rightfully acknowledges on page 1-5 that "land use plans and amendments must be consistent with officially approved or adopted resource- related plans, and the policies and programs contained therein, of other federal agencies, state and local governments, and Native American tribes, so long as the guidance and RMPs are also consistent with the purposes, policies, and programs of federal laws and regulations applicable to public lands." Unfortunately, Table 1-2, which provides the "Related Local, State, and Federal Management Plans" for the Rock Springs planning area contains outdated local plans for each of the five counties listed. | See updates to Table 1-2. |
| 838 - General-NEPA Compliance | #13919-3 | Each of the five counties updated their plans within the last three years. Fremont County's Natural Resource Management Plan was approved in 2021; Lincoln County's Natural Resource Management Plan was approved in 2021; Sublette County's Federal and State Land Use Policy was approved in 2021; Sweetwater County's Federal Lands and Resources Plan was approved in 2022; and Uinta County's Comprehensive Plan was approved in 2021. Counties provided their updated plans to the BLM, and some even solicitated the BLM provide comments on their draft plans during the amendment process. | See updates to Table 1-2. |
| 838 - General-NEPA Compliance | #13919-4 | Chapter 5.1 details the efforts undertaken by the BLM for consultation. coordination, and consistency while developing the Draft RMP revision and EIS. Specifically, the Draft RMP states the "interdisciplinary team reviewed county land use plans to ensure consistency." It is assumed that the plans reviewed to ensure consistency were the wrong plans identified in Table 1-2. Unfortunately, there is no discussion or report from the interdisciplinary team to understand what inconsistencies they may have discovered in their review or how they ensured consistency with local plans. The statement in the Draft RMP by itself, without any discussion of "possible conflicts," suggests that the interdisciplinary team did not find any inconsistencies. | See updates to Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13919-5 | The RMP also provides that "consistency for the draft EIS w[as] accomplished primarily through the assistance of cooperating agencies formally involved in the project." This statement appears to conflate the requirements for cooperation with consistency. Although consistency is best achieved through cooperation with local governments in the NEPA process, consistency and cooperation are distinct requirements. A federal agency cannot accomplish | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |

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| | | consistency simply because local governments formally participated as cooperating agencies. The BLM does not provide any further detail of the opportunities it provided to cooperating agencies or what assistance it was given from cooperators regarding consistency. There is no further discussion of consistency with county plans in the remainder of the Draft RMP. | |
| 838 - General-NEPA Compliance | #13919-6 | The remainder of this document contains a side-by-side comparison of the management prescriptions for the preferred alternative (Alternative B) in the Draft RMP and citations to the appropriate Fremont, Lincoln, Sublette, Sweetwater, and Uinta Counties' resource plans. The tables identify apparent inconsistencies between each county's resource plans and the Draft RMP and provides the BLM an opportunity to discuss and/or resolve inconsistencies. | See updates to Table 1-2. |
| 838 - General-NEPA Compliance | #13919-7 | A similar approach has been successfully used by other federal land management agencies to ensure compliance with NEPA's requirement to discuss and resolve inconsistencies with approved local government plans.5 While NEPA does not require this specific format, it does require a meaningful and detailed discussion of consistency with local plans. Substantial effort has been put forth to create these documents to assist the BLM in its consistency review and discussion. This document may also serve as the basis for the BLM's required disclosures to the Governor for consistency review. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13951-1 | To begin, I take real issue with how this all come about - in the dark of night, without bringing in the major stakeholders, industry leaders from the mining, agriculture, renewable and non-renewable resources, etc., and cooperating agencies such as the cities, counties, and the state; breaking laws and overstepping their authority, ignoring their own research…all in the name of preservation under guise of conservation. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13953-1 | As described in detail below, the WCCA believes that the Rock Springs Draft RMP will necessarily need to be supported by a supplemental EIS to revise the decades old data and analysis, provide updated reasonably foreseeable development scenarios that account for recent technological developments, accurately assess the socioeconomic impacts of overlapping resource restrictions, and to fully evaluate environmental impacts currently lacking in the document. Additionally, our hope is that by working with cooperating agencies on a supplemental EIS the BLM can rebuild some of the trust lost in this process, work with counties to resolve inconsistencies between the Draft RMP and approved county plans, and ultimately bolster management for the betterment of the land, its resources, and the public. | See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. Appendix N provides a full socioeconomic report. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 838 - General-NEPA Compliance | #13953-3 | This is not to say that the existing Green River RMP has substantial issues that needed resolved. In fact, one general conclusion that should be gleaned from the Rock Springs Task Force report is that many of the management actions for the RMP area do not need to change. | Section 1.2 adequately explains the purpose and need for the Rock Springs RMP revision. |
| 838 - General-NEPA Compliance | #13953-4 | Another substantial effort the WCCA undertook for the Draft RMP was the creation of a Consistency Evaluation Table for each of the five counties, which compares the preferred alternative to approved county natural resource plans. We have invested hundreds of hours of work, in good faith, to make the BLM's job of performing its required consistency review easier. Without repeating the entire letter (submission ID: DEIS-1-500626417), we again request that the BLM complete this exercise to meaningfully discuss inconsistencies with local plans. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13953-5 | The Draft RMP currently lacks any meaningful discussion regarding consistency with local government plans. The Draft RMP simply states, without any description or detail, that the "interdisciplinary team reviewed county land use plans to ensure consistency." Without questioning that the interdisciplinary team actually reviewed county land use plans, there is no evidence within the Draft RMP that they ensured consistency. On the contrary, Alternative B, is by and large, inconsistent with all five of the counties' approved plans. For example, compare the following statement from the approved Sweetwater County plan to the Draft RMP's summary for its preferred alternative. "Sweetwater County discourages and vigorously opposes federal land use restrictions or special designations that eliminate multiple uses and constrain economic growth and activity." 2.2.2. Sweetwater County Federal Lands and Resource Plan (2022). vs. "Alternative B protects the greatest amount oflands through mineral leasing restrictions, management of ACECs, and lands with wilderness characteristics. Habitat for wildlife, vegetation, natural resources, and cultural resources would receive the greatest protection. Socioeconomic impacts would be the largest due to reduced mineral development." Table 2. ES-7. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13953-6 | The county's approved plans and the preferred alternative are fundamentally at odds. While inconsistencies can exist under the law, efforts are required to be made to resolve inconsistencies and there should be a discussion of possible conflicts between the proposed action and local plans. It is disingenuous to suggest that the BLM's interdisciplinary team reviewed county plans to ensure consistency without providing any description of what the team actually did. The Draft RMP does at least provide a citation to the county plans that it reviewed. Unfortunately, every one of the county plans contained in Table 1-2 are no longer valid, as they have each been supplanted by amended plans. | See updates to Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13953-7 | Fremont, Lincoln, Sublette and Uinta all updated their plans in 2021 and Sweetwater updated their county plan in early 2022. Just like an RMP amendment, the process to update county plans is substantial in both time and effort. At least a few of the counties within the RMP area specifically requested the BLM provide comments on their draft county plans; however, BLM did not provide a response to the counties' request. As a final step, once plans were | See updates to Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |

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| | | approved, counties provided updated copies of their plans to all federal agencies and posted them on applicable county websites. | |
| 838 - General-NEPA Compliance | #13953-8 | Under FLPMA, the BLM has a responsibility to stay apprised of local government plans and give them consideration during the development or amendment of a BLM land use plan. Specifically, FLPMA provides: To the extent practical, the BLM must stay apprised oflocal land use plans. The BLM must assure that local land use plans germane to the development ofBLM land use plans are given consideration. To the extent practical, the BLM must assist in resolving inconsistencies between local and BLM land use plans. The BLM must provide for the meaningful involvement of local governments in the development of BLM land use programs, regulations, and decisions. 43 U.S.C. § 1712(c)(9). More detrimental than failing to stay apprised of the approved local land use plans in the RMP area, is the failure to "assist in resolving inconsistencies between local and BLM land use plans." Based on the information in the Draft RMP, the only consideration given to resolving inconsistencies appears to be BLM's involvement of cooperating agencies in the project. The Draft RMP states that "consistency for the draft EIS w[as] accomplished primarily through the assistance of cooperating agencies formally involved in the project." However, this statement is not correct in principle nor practice. First, as discussed above, the preferred alternative in the Draft RMP is largely inconsistent with local plans. The statement from the Draft RMP reads as if consistency with county plans has already been achieved. Second, the BLM's requirement to cooperate with local governments as cooperating agencies is not the same as BLM's requirement to resolve inconsistencies. While the BLM should provide cooperating agencies with an opportunity to discuss inconsistencies throughout the cooperating agency process, BLM's requirement for consistency with local plans stands alone. For example, if one of the five impacted counties opted to not participate under NEPA as a cooperating agency, the BLM would still be required to stay apprised of their approved local land use plan, assure it is given consideration in the development of the BLM's Draft RMP, and assist in resolving inconsistencies. Finally, as the BLM knows, cooperator meetings are protected by MOUs signed with cooperating agencies prohibiting the sharing of pre-decisional documents. To the extent that documents from within those meetings were generated, reviewed, or commented on, there is no way for the general public to see that information without the BLM sharing it in the Draft RMP. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13953-9 | Outside of these two references that plans were reviewed by the interdisciplinary team and consistency accomplished from cooperator meetings, there is nothing else in the Draft RMP describing the extent to which the BLM would reconcile its proposed action with the plan or law. 40 C.F.R. § 1506.2(d). Without any meaningful attempt to discuss inconsistencies in the Draft RMP, our concern is that the BLM's required consistency review report with the Governor of Wyoming will also be lacking. The Governor's consistency review is predicated on the State Director submitting known inconsistencies with local plans, policies, or programs. 43 C.F.R. § 1610.3-2(e). As the Draft RMP is currently written, it wrongly suggests that the Draft RMP and approved county plans are consistent. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #13953-10 | While NEPA is designed to take a hard look at environmental impacts, it does not require that federal agencies select actions that have the least environmental consequences. In fact, selecting actions that are perceived to have the least environmental consequences may very well violate other laws that the federal agency is bound to uphold. For example, the Draft RMP explains in section 2.2.4 that the BLM considered closure to livestock grazing, closure to fluid mineral leasing, and closure to coal leasing within the RMP area as a method for resolving conflicts with other resource values and uses, but ultimately eliminated closures from further analysis as not reasonable in light of the BLM's multiple use, sustained yield mandate outlined in FLPMA, the Mineral Leasing Act, and the fact that complete closure is inconsistent with policy objectives. | See Section 1.4 for a list of planning criteria, including compliance with FLPMA and all other applicable laws, regulations, and policies. |
| 838 - General-NEPA Compliance | #13953-19 | The WCCA is hopeful that the BLM moves drastically off the substantial resource restrictions present in its preferred alternative and proposed ACEC's. To update the reasonably foreseeable development scenarios, socioeconomics, discussion concerning consistency with approved county plans, and to consider environmental impacts not examined in the Draft RMP, it is likely necessary to produce a supplemental EIS. While further extending the resolution of the RMP amendment process may not be popular within the agency, the BLM has our full support | See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. A technical socioeconomic report is included in Appendix N. |
| 838 - General-NEPA Compliance | #14019-1 | BLM failed to coordinate with county natural resource management plans. BLM must coordinate with local governments to ensure that management actions are consistent with these plans and if not, provide a detailed explanation as to why based on federal laws, regulations, rules or policies. In choosing not to do so, BLM violated this requirement. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #14019-3 | WACD maintains that the economic analysis conducted over a decade ago at the beginning of the RMP process is no longer valid | Neither the RFD nor the Socioeconomic report are goals or intended outcomes, but rather baseline measurement tools for analysis comparison among the alternatives that have differing management restrictions. Additionally, even if market conditions have changed in the intervening years, the baseline data is adequate to compare conditions and differentiate resource impacts among the alternatives. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. See Section 4.2.3 regarding the adequacy of the RFD scenario for the purpose of equitably comparing alternatives. See Chapter 3 for description of adequacy of baseline data gathered in 2013. |

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| 838 - General-NEPA Compliance | #14022-1 | SCCD is concerned that the process used by the Bureau of Land Management (BLM) to roll out the RMP to the Cooperating Agencies (CA) is in direct violation of Federal Land Policy and Management Act of 1976 (FLPMA), specifically regarding the involvement of local governments, for many reasons including: 1) Skipping the CA process for an "internal" review prior to the release to the public 2) BLM's lack of CA involvement, highlighted on page ES-7. 3) Lack of collaboration with CA's in Table 1.2 on page 1-6. The plans associated with SCCD are out of date and would have been corrected if the CA's had been communicated with prior to the release of the RMP. SCCD has updated our Long-Range Plan in 2020. | See updates to Table 1-2. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5 for details on public involvement, coordination, and consultation. |
| 838 - General-NEPA Compliance | #14027-1 | As an overarching matter, however, the NMA urges BLM to go back to the drawing board and restart the Rock Springs RMP process with a new scoping period. Reliance on outdated information gathered during the 2011 scoping period is a disservice to the potentially affected stakeholders. Given the passage of over a decade, BLM should collect updated information properly through a new scoping period. While we sympathize with the agency's struggles to address its RMP backlog, BLM cannot ignore the obligation to make planning decisions based on current information. As the agency broadly acknowledges "sound land management decisions require knowledge of the resources affected by those decisions. | See Section 5.1 regarding public involvement and government consultation and coordination in developing all alternatives. See Executive Summary Introduction (page ES-1) and Section 3 regarding the sufficiency of AMS summary and baseline data. |
| 839 - General-FLPMA / Multiple Use | #302-3 | Despite the BLM's acknowledgement of the harm to these bedrock industries of the State of Wyoming and the resulting damage to local communities as well as to the entire State of Wyoming, the agency still proposes to select Alternative B as their preferred alternative. This disregard for the multiple use of BLM lands within the Rock Springs District's RMP EIS is in clear contradiction to the BLM's mission statement and charge from Congress: "A Multiple-Use and Sustained Yield Mission Congress tasked the BLM with a mandate of managing public lands for a variety of uses such as energy development, livestock grazing, recreation, and timber harvesting while ensuring natural, cultural, and historic resources are maintained for present and future use. To do this, we manage public lands to maximize opportunities for commercial, recreational, and conservation activities. This promotes healthy and productive public lands that create jobs in local communities while supporting traditional land uses such as responsible energy development, timber harvesting, grazing, and recreation, including hunting and fishing." | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. |
| 839 - General-FLPMA / Multiple Use | #305-3 | Does the BLM consider working with the State and Industries on alternatives for the greater good? By greater good I mean, preserve the environment and at the same time prevent negative impact of the communities prosperity and people well being. | See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #315-1 | Alternative B, the agency's preferred alternative, certainly does not meet the mandate of multiple use and sustainable yield. Rather, it appears to be a plan solely based on conservation and will limit the potential for multiple use on BLM lands going forward. | The Draft EIS is in compliance with NEPA and FLPMA (see Section 1.4 "Planning Criteria"). |
| 839 - General-FLPMA / Multiple Use | #317-1 | Accompanying the long-anticipated release of the Rock Springs RMP, the BLM has selected as its preferred alternative one that does not reflect the multiple use mandate in the Federal Land Management and Policy Act (FLPMA). Alternative B, the conservation alternative, would close for fluid leasing 2,186,218 acres of the 3.7 million subsurface acres managed in the field office. It would leave oil and gas development available only where valid existing rights occur, closing every other acre in the field office. Currently, any lands not specifically closed are available for development (as well as every other available use). FLPMA directs that public lands be managed with recognition of the nation's need for domestic sources of minerals2 and has thus identified mineral development as a primary use of public lands. Removing that potential from every acre not already leased is, in effect, a withdrawal of federal lands for a specified purpose, an action which can only be taken by Congress3. | See Section 2.2.4 for alternatives considered but eliminated from detailed analysis, including closing the planning area to new leasing of federal minerals, specifically fluid minerals. Table 1 in the Executive Summary compares lands open and closed to mineral resource restrictions, and a detailed analysis of impacts to fluid minerals under each alternative is provided in Section 4.11. See also Section 1.4 for a list of Planning Criteria for the RMP, including adherence to FLPMA. |
| 839 - General-FLPMA / Multiple Use | #332-2 | The intended purpose of the release of a draft plan is to provide a wide spectrum of options while identifying as a Preferred Alternative a balanced approach that meets the BLM multiple use mandate. This approach then enables all interests to recommend meaningful substantive changes to that alternative. The current Alternative B is so completely detrimental to multiple use, including livestock grazing, that it does not even lend itself to constructive comment. It completely fails to recognize the importance of the expertise and commitment of local interests, including local BLM personnel, to management of these lands. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. |
| 839 - General-FLPMA / Multiple Use | #345-1 | It is absurd that the BLM would consider this alternative as the preferred when the Rock Springs area is rich in mineral and energy reserves, the gateway for electric generation transmission, offers significant grazing opportunities, allows for all forms of recreation and multiple use. | See Section 1.4 for a list of Planning Criteria for the RMP, including adherence to FLPMA. |
| 839 - General-FLPMA / Multiple Use | #345-4 | Moreover, the Federal Land Policy and Management Act (FLPMA) provides a framework for managing public lands that requires a systematic, interdisciplinary approach and requires coordination in land use planning with other state and federal agencies. Under FLPMA (43 USC l7l2 11976)), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands such as state or private property. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |

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| 839 - General-FLPMA / Multiple Use | #345-6 | Preferred Alternative "B" does not meet the mandate of multiple use and sustained yield as provided in FLPMA and it appears to solely support the management of conservation or preservation of lands in the RMP area through special designations including a historic level of Areas of Critical Environmental Concern (ACECs), limited or no leasing of minerals and land use allocations, restrictions for access to federal lands, along with other restrictive management prescriptions. This is unacceptable and our County clearly cannot support such a document that has negative impacts on our local communities and the State. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. |
| 839 - General-FLPMA / Multiple Use | #345-7 | Currently the federal agency is not in any way consistent with the local county land use plans either substantively or procedurally which violates FLPMPA and NEPA. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #348-2 | BLM must better align with local natural resource plans. The Preferred Alternative "B" does not meet the mandate of multiple use and sustained yield as provided in FLPMA and it appears to solely support the management of conservation or preservation of lands in the RMP area through special designations including a historic level of Areas of Critical Environmental Concern (ACECs), limited or no leasing of minerals and land use allocations, restrictions for access to federal lands, along with other restrictive management prescriptions. This is unacceptable and our County clearly cannot support such a document that has negative impacts on our local communities and the State. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 839 - General-FLPMA / Multiple Use | #348-3 | Currently the federal agency is not in any way consistent with the local county land use plans either substantively or procedurally which violates FLPMPA and NEPA. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 839 - General-FLPMA / Multiple Use | #363-3 | Moreover, the Federal Land Policy and Management Act (FLPMA) provides a framework for managing public lands that requires a systematic, interdisciplinary approach and requires coordination in land-use planning with other state and federal agencies. Under FLPMA (43 USC 1712 (1976]), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands such as state or private property. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |
| 839 - General-FLPMA / Multiple Use | #363-5 | The Preferred Alternative "B" does not meet the mandate of multiple use and sustained yield as provided in FLPMA and it appears to solely support the management of conservation or preservation of lands in the RMP area through special designations including a historic level of Areas of Critical Environmental Concern (ACECs), limited or no leasing of minerals and land use allocations, restrictions for access to federal lands, along with other restrictive management prescriptions. This is unacceptable and our County clearly cannot support such a document that has negative impacts on our local communities and the State. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. See Section 1.4 for a list of Planning Criteria for the RMP, including adherence to FLPMA. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #363-6 | Currently the federal agency is not in any way consistent with the local county land use plans either substantively or procedurally which violates FLPMPA and NEPA. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). See also section 5.1.2 . |
| 839 - General-FLPMA / Multiple Use | #363-7 | Furthermore, the County strongly urges BLM to review all of the local county natural resource plans (Fremont, Lincoln, Sweetwater, Sublette and Uinta Counties) affected by this decision and coordinate with the state and local county cooperating agencies that work, recreate and earn a livelihood in this area. Only then can the agency develop a preferred alternative that is consistent with those local plans as allowed by law and provides for a balance between conservation and protection and economic growth. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #507-1 | So, it is completely incomprehensible that the BLM selected for its Agency Preferred Alternative, Alternative B, one considered an outlier in previous attempts at issuing an RMP one that was meant to serve initially as a bookend - an alternative with the most resource use restrictions and concomitantly with the largest socioeconomic impacts. Over a decade's worth of contributions from local stakeholders, cooperators, counties, and state agencies are either falling on deaf ears or disingenuously being thrown by the wayside with this decision." | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. See Section 1.4 for a list of Planning Criteria for the RMP, including adherence to FLPMA. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #550-1 | While the WBA understands the difficult task the BLM faces in managing millions of acres of public lands across Wyoming, it is essential that in doing so the BLM balance the interests of all stakeholders in furtherance of its Federal Land Policy and Management Act's (FLPMA) multiple-use objective. Here, the BLM has failed to meet that challenge, preferring to choose an alternative - Alternative B - that represents a seismic shift in public land management away from public access and use for recreation, mineral development, rights-of-way, and agriculture, and toward unnecessary and unjustified restrictions at the expense of the people and businesses of Wyoming. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. See Section 1.4 for a list of Planning Criteria for the RMP, including adherence to FLPMA. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #8454-1 | Closing off of PUBLIC lands to all resource development goes against the Federal Land Policy and Management Act FLPMA. Congress charged the BLM with managing public lands according to the principles of multiple use and sustained yield. | Please refer to Chapter 2 for a detailed description of all four alternatives and proposed management actions. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and |

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| | | | amendments, including consistency with FLPMA and NEPA. See also Section 2.2.4 for alternatives considered but eliminated from detailed analysis, including closing the planning area to fluid minerals leasing or livestock grazing. |
| 839 - General-FLPMA / Multiple Use | #8761-1 | The analysis should adequately consider the human environment. Adequate consideration of the human environment is woven into many of our significant issues. The agency should avoid decisions that make relatively insignificant improvements to natural resources at a cost of significant impacts to the human environment. The agency's decisions should be based on impartial consideration of all issues. The agency's decisions should be made with a reasonable sense of magnitude. The public will be significantly impacted if the agency only considers natural resources without reasonable consideration of the human environment. One-sided consideration of issues is not acceptable for public lands and especially for those designated for multiple-use. | As stated in the Executive Summary, "the purpose of the analysis of environmental consequences is to determine the potential for significant impact of the 'federal action' on the 'human environment'" (pg. ES-6). Adequate analysis of impacts to the human environment is provided in Section 4. |
| 839 - General-FLPMA / Multiple Use | #8761-14 | The agency's project team should adequately consider that NEPA 1969 directed consideration of the human environment and the natural environment. The agency should adequately consider the value of motorized recreation opportunities on the human environment using site-specific data and analysis addressing social and economic values and impacts; the need for recreation and healthy activities; the need to experience "flow" and nirvana; the need to exercise our culture; and the need to address obesity and suicide issues, and the need to address physical and mental health needs. NEPA 1969 was intended to protect and promote We are a locally supported association whose purpose is to preserve trails for all environments equally. The depth and breadth of site-specific data and analysis of the human environment should be equal to that of the natural environment. | Obesity, suicide, and mental health problem solving are outside the scope of this Draft EIS and RMP. See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. For a list of management actions specific to off-highway vehicles, see Table 2-1 #6600-6620. |
| 839 - General-FLPMA / Multiple Use | #8851-1 | BLM's preferred Alternative B violates the National Environmental Policy Act and the Federal Land Policy and Management Act. This proposal will destroy Wyoming's economy for the sake of "conserving" large swaths of land, thereby placing off limits millions of acres of land the primary utility of which is recreation, grazing, and resource development. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). For a socioeconomic report, see Appendix N. |
| 839 - General-FLPMA / Multiple Use | #9721-3 | Removing mineral exploration and development from 83% of the land covered by this proposal hardly satisfies the 1976 FLPMA, which specifically states "management be on the basis of multiple use and sustained yield." | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). |
| 839 - General-FLPMA / Multiple Use | #9721-4 | Alternative B conserves "the most land for physical, biological and cultural resources," yet the FLPMA and MMA requires the lands to be analyzed and made available for sustainable development and multiple use. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). |
| 839 - General-FLPMA / Multiple Use | #9774-7 | Instead, we focus on oil and gas development, particularly regarding examining CO2 emissions and contributions to climate change. According to the US Geological Survey (USGS) and US Department of the Interior (DOI), "the CO2 emissions attributed to Federal lands in Wyoming are 57 percent of the total from the Federal lands in all States and offshore areas combined." The figure below visually depicts the amount of CO2 emissions in Wyoming on public land alone. Furthermore, this pie chart draws attention to the fact that the BLM should be pursuing a conservation approach, given the evidence. It should be noted that the BLM considered alternatives to completely close fluid mineral leasing and coal leasing. However, that alternative was eliminated by the BLM as they stated that "this action is not reasonable in light of the BLM's multiple-use mandate outlined in FLPMA or the Mineral Leasing Act of 1920, and is inconsistent with policy objectives." We challenge this reading of the statute. The term "multiple use" means "the management of public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people...the use of some land for less than all of resources...tak[ing] into account the long-term needs of future generations for renewable and nonrenewable resources." As such, multiple-use does not have the narrow definition as defined by the BLM in this draft plan. | See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). For a list of alternatives not carried forward for detailed analysis, see Section 2.2.4. |
| 839 - General-FLPMA / Multiple Use | #9792-1 | This plan neglects to provide for the BLM's legal obligations as set by Congress in ensuring that public lands are managed according to the principles of multiple use and sustained yield as identified in the Federal Land Policy and Management Act (FLPMA) of 1976. The DEIS barely mentions "sustained yield" in its 1,330 pages, doesn't define the term, and does not provide for sustained yield as a goal, measurable objective, or action. FLPMA mandates that "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands." Yet the DEIS fails to mention food for humans at all (all references to food are to meeting the needs of wildlife, with the exception to expenditures made by recreation users). Likewise, the production of fiber from our public lands is also not mentioned - despite that Wyoming ranks #2 in the nation for wool production, with a substantial portion of this wool produced from ranches operating in the Rock Springs District. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). |
| 839 - General-FLPMA / Multiple Use | #9792-19 | The preferred alternative expressly contemplates actions that elevates wildlife and "natural" processes over other resources uses and human-initiated action, without any explanation of why the agency would have such a preference. It's certainly not supported by science. | The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. See also Appendix E and the Federal Land Policy Management Act. |
| 839 - General-FLPMA / Multiple Use | #9792-20 | Under Alternative B, water developments for livestock could be made "only if wildlife habitat and resource conditions would be improved or maintained." That livestock grazing is one of the multiple uses that results in sustained yields while producing food and fiber isn't treated equally to wildlife in this alternative, so actions to | Livestock grazing management actions can be found in Table 2-1 #6400-64170. For the definition of multiple use, please see the Glossary section. |

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| | | benefit livestock management would only be allowed if wildlife habitat is benefited. This demonstrates the BLM's bias. | |
| 839 - General-FLPMA / Multiple Use | #9792-23 | In light of the negative economic consequences for livestock permittees, as well as harm to traditions and economies of local communities, please explain how and/or why this alternative is the BLM's Preferred Alternative. Please explain how such a proposal that admittedly would harm resource users and communities complies with the land management goals stated by Congress. | The rationale for any future decisions will be made available in the Record of Decision and are outside the scope of this Draft EIS analysis. A socioeconomic report is provided in Appendix N. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. |
| 839 - General-FLPMA / Multiple Use | #9847-1 | In addition to the flaws of TP, the BLM process did not appropriately consider state and local government policies as required by the Federal Land Policy and Management Act. The Sweetwater County Land Resource Use Plan and Policy is one of the local community's standing policies for governing the management of private, state and federal land and the rangeland, soil, water, and wildlife resources. This all discounts and discredits local policies that place a great significance on protecting agricultural land, ensuring access to natural resources on federal and state lands, provides for reduced regulatory costs for small businesses, encourage mineral and energy resource exploration development and recovery, protecting the rights of landowners and surface owners, and supporting beneficial mining efforts and their economic impacts. BLM is obligated to consider and incorporate, to the fullest extent possible, the local policies; which TP does the opposite of in almost all accounts. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and NEPA, and state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). |
| 839 - General-FLPMA / Multiple Use | #9893-1 | I am opposed to the proposed preferred option. It does not appear to be consistent with FLPMA's multiple use mandate. I would like clarification on the metrics used to designate this option as preferred. When were the criteria most recently evaluated? | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). |
| 839 - General-FLPMA / Multiple Use | #10468-2 | Quantified" impacts on grazing, coal and soda ash production and recreation are asserted to be the same; however, this is not accurate. The plan changes the identified use of millions of acres to prohibit surface use of lands, terminate use of roadways for motorized vehicles, and other significant impacts that will eliminate use of state and private lands due to the checkerboard of federal, state and private lands. | Quantified economic impacts are provided in Appendix N.4. Methodologies for the socioeconomic analysis of each resource is provided in Appendix N.2. In addition, see Section 1.4 for clarification that the RMP and all alternatives will recognize valid and existing rights. |
| 839 - General-FLPMA / Multiple Use | #10468-6 | Rather than honor a decade worth of cooperation, work and development of a balanced approach, Alternative D, the BLM has chosen to issue this draft RMP with a direct, haphazard, impractical and insincere preference of Alternative B. | BLM adequately consulted stakeholders in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #10494-4 | WSGA finds the extensive use of special designations to be in direct conflict with the multiple use mandate. These designations complicate and can serve to preclude livestock grazing that has been authorized for decades and that is currently meeting or moving toward Wyoming Land Health Standards. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). Livestock grazing management actions can be found in Table 2-1 #6400-64170. |
| 839 - General-FLPMA / Multiple Use | #10517-1 | * The Federal Land Policy and Management Act of 1976 (FLPMA) requires the Secretary of the Interior to "manage the public lands under principles of multiple use and sustained yield."1 * The FLPMA also requires the Secretary of the Interior to "use and observe the principles of multiple use" when developing or revising land use plans.2 This requirement is the very first requirement in a long list of requirements for the Secretary to consider in developing and revising land use plans. * The Plan's first listed goal for mineral resources is to "[p]rovide opportunities to explore, locate, and develop locatable minerals while protecting other resource values."3 We struggle to see how withdrawing nearly 2 million acres from mineral development is consistent with the requirement of multiple use and the goal of development opportunities. While we appreciate the need to protect other resource values, the Bureau cannot reconcile multiple use while withdrawing at least 1.5 million acres more compared to Alternative C and Alternative D. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). |
| 839 - General-FLPMA / Multiple Use | #10517-3 | Similarly, the Plan and the selection of Alternative B appears to disregard the socioeconomic costs associated with the need for promoting energy security and stability for America. By removing nearly 2 million acres from potential energy development through the proffered selection of Alternative B, the Bureau is limiting America's flexibility to respond to rising energy prices and the ability to protect American consumers and businesses from depending on the vagaries of foreign producers and countries to meet our need for reliable and dispatchable energy. We also can't help but recognize how Alternative B stifles energy production as a whole, excluding or closing millions of acres more to other energy sources (including geothermal) than the other three alternatives do. This is another example of how we believe Alternative B misses the mark when it comes to managing public lands under principles of multiple use. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Relative to all alternatives, Alternative B emphasizes conservation of resource values with constraints on resource uses (see Executive Summary "Alternatives" [pg. ES-3] and Table 1 for summary of comparison between all alternatives). See Section 1.2.1 Purpose, and Sections 1.4-1.5 Planning Criteria and Relationship to Other Plans (including FLPMA and NEPA). A socioeconomic analysis for all four alternatives can be found in Appendix N and Chapter 4. |
| 839 - General-FLPMA / Multiple Use | #10517-6 | The work of cooperating agencies and parties should not be so easily dismissed. We are mystified at how the Bureau landed on the most extreme alternative while disregarding Alternative D, an alternative that came about during a cooperative process that has now exceeded a decade. The FLPMA requires "public involvement" when revising land use plans.7 Under federal law, that public involvement is not just a process the Bureau must complete to check a box, and it is not a process where comments and input can just be summarily disregarded with the stroke of a pen. On the contrary, the FLPMA requires the Secretary of the Interior to provide "for meaningful public involvement of State and local government officials," among others.8 Selecting the extreme case of Alternative B renders years of input from state and local agencies, officials, and citizens meaningless. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| 839 - General-FLPMA / Multiple Use | #10517-7 | The last time formal meetings were held were in 2019 (with a virtual meeting in 2020 simply described as "alternative review"). The last formal meetings are characterized as an invitation "to develop and finalize Alternative D." We wonder why an invitation to finalize Alternative D would be necessary if the Bureau would then turn around and disregard that alternative and the years of work that cooperating agencies poured into the development of Alternative D. As we further explain below, meaningful public involvement must include further formal consultation and coordination to account for intervening changes in federal policy before the Bureau can select a preferred alternative (whether the extreme Alternative B or otherwise) and proceed. | BLM adequately consulted stakeholders in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See Sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13032-1 | The purpose and need as defined by the BLM in the Draft RMP Amendment does not align with mandated laws which govern the BLMs authority. In truth it constitutes a blatant abuse of authority and discretion. | The Draft EIS is in compliance with all laws and regulations (see Appendix E, FLPMA, and NEPA). The purpose and need for this RMP revision are provide in the Executive Summary and in Sections 1.2.1 and 1.2.2. See also Section 1.4 for a list of planning criteria that guided and directed the planning effort. |
| 839 - General-FLPMA / Multiple Use | #13064-11 | Alternative B completely disregards the Federal Land Policy and Management Act. As described above, Alternative B would significantly affect Wyoming's energy, mineral, agriculture, and recreation industries. Alternative B would close vast amounts of acreage to mineral development and production, livestock grazing, and recreation. These acreage closures imposed by Alternative B are extreme and completely disregards the Federal Land Policy and Management Act (FLPMA). The FLPMA requires the BLM to "manage the public lands under principles of multiple use and sustained yield." | The Draft EIS, including all four alternatives, are in compliance with FLPMA. For the definition of multiple use, please see the Glossary section. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13153-1 | Not only does “Alternative B” constitute the most restrictive of the agency’s possible alternatives– your agency admits in its Environmental Impact Statement that this alternative creates the largest socioeconomic impact due to reduced mineral development on the 3.6 million acres subject to your control. Under the Multiple Use-Sustained Yield Act of 1960, your agency is required to manage federal lands in accordance with the principles of multiple use and sustained yield. This means that all possible uses and benefits of the lands be treated equally by your agency when promulgating land use plans. Clearly, you and your agency have ignored the deeply enshrined principles of multiple use and sustained yield. “Alternative B” removes over 7,000 animal unit months of grazing, removes over 60,000 acres from any and all use to “protect wilderness characteristics,” and “de-emphasizes recreation” in favor of “conservation of resource values with constraints on resource use.” Your preferred plan withdraws millions of acres from mineral extraction, leasing, exploration, and development. Your plan will obliterate the tax revenue derived from mineral, agricultural, recreation and tourism industries in southwest Wyoming | The Draft EIS, including all four alternatives, are in compliance with FLPMA. For the definition of multiple use, please see the Glossary section. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13210-1 | 1. The task force believes that current use, industrial development, recreation, livestock grazing, wildlife habitat, and open spaces within the BLM's Rock Springs field office should be managed to provide a balance of our natural resources and a vibrant economy for southwest Wyoming. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. |
| 839 - General-FLPMA / Multiple Use | #13247-1 | b. Section 7.4.4.1: Consultation and coordination with Fremont County should occur at the earliest time possible for any proposed action, change of existing activities, newly permitted activities, or changes in regulations that may affect the economic basis of the County. This coordination should be used to determine the full scope of potential social and economic effects of activities proposed on public lands, including impacts to circulating dollars when access and use of federal land is proposed. | BLM adequately consulted stakeholders in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See Sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13249-1 | Alternative B would significantly affect Wyoming's energy, mineral, agriculture, and recreation industries. Alternative B would close vast amounts of acreage to mineral development and production, livestock grazing, and recreation. These acreage closures imposed by Alternative B are extreme and completely disregards the Federal Land Policy and Management Act (FLPMA). The FLPMA requires the BLM to "manage the public lands under principles of multiple use and sustained yield." The United States Supreme Court has stated that '"multiple use management' is a deceptively simple term that describes the enormously complicated task of striking a balance among the many competing uses to which land can be put." These competing uses are outlined in the definition of multiple use under the FLPMA as "including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and uses serving natural scenic, scientific and historical values." The definition requires managing these uses "without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources." Alternative B fails to manage the Rock Springs planning area under principles of multiple use as the FLPMA requires. Alternative B nearly eliminates mineral development and production, recreation, and livestock grazing in favor of "natural scenic, scientific and historical values." Alternative B emphasizes a conservation-only approach. I am strongly opposed to preferred Alternative B, as it represents a stark departure from the collaborative land management approach required by the FLPMA under multiple use. Alternative B would negatively impact Wyoming's mineral, agriculture, and recreation industries resulting in a detrimental overall negative economic impact to the state, while imposing permanent impairment of the productivity of the land. The best choice for the BLM RMP is alternative A. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and recognition of valid and existing rights. For the definition of multiple use, please see the Glossary section. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13287-42 | It will be necessary to manage WSAs as VRM Class I in order to maintain wilderness characteristics as required by FLPMA (DEIS at 2-152); by failing to do this outside the JMH planning area, Alternatives A and C are FLPMA noncompliant. We also applaud the decision to extend VRM Class II within 3 miles of WSA boundaries. DEIS at 2-152. | All WSAs are proposed VRM I in all alternatives (see Maps 2-17 through 2-20). |

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| 839 - General-FLPMA / Multiple Use | #13330-1 | Alternative B is in direct violation of the Federal Land Policy and Management Act of 1976, as amended, multiple-use and sustained yield mandate to serve present and future generations. Sweetwater County Farm Bureau opposition to Alternative B is reflected by the quote from Page 4-260 of the BLM RMP. "A number of livestock grazing management actions under Alternative B could reduce the number of AUMs available for grazing, increase expenses, or alter management practices of operators." A supporting quote on page 4-261 further explains that, "To the extent that some ranchers cannot adjust their operations to make up for the losses of the forage on BLM administered land, the nonmarket values associated with some of the ranches in the planning area, including provision of nonmarket lifestyle values to ranchers and open space amenity values to other residents and tourists, could be negatively impacted." | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. For the definition of multiple use, please see the Glossary section. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. |
| 839 - General-FLPMA / Multiple Use | #13330-17 | * Sweetwater County Farm Bureau is opposed to the Alternative B proposed withdrawal of 258% lands from more land from any potential mineral extraction and 305% more lands from oil and gas extraction. Many of our members hold jobs in these sectors to provide supplemental income. Agriculture producers value mineral and oil and gas production in our area. Additionally, such withdrawals would decimate our local economy and the Alternative B proposal directly violates the Domestic Minerals Program Extension Act of 1953, The Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the Energy Policy Act of 2005. | Refer to the Glossary for a definition of 'withdrawal'. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13381-4 | 5. FLPMA FLPMA requires that USFS “balance wild horse and burro use with other resources” which equates at minimum to a 50-50 allocation of available forage between horses and livestock on WHTs. The EIS fails to address this. The EIS fails to address that FLPMA highlights the importance of the non-market value within its definition of the term “multiple-use.” FLPMA requires that: “(c) . . . consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.” The intrinsic value of wild horses and burros falls under the non-market definition specified by both laws (Sec. 302 of FLPMA). | Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern were addressed under a separate RMP Amendment and EIS (see Sections 1.3 and 2.2.5). See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. |
| 839 - General-FLPMA / Multiple Use | #13411-1 | Currently, the Rock Springs area has ten areas for critical environmental concern (ACEC) totaling 286,450 acres, thirteen wilderness study areas totaling 227,960 acres, and six management areas totaling 580,010 acres. Alternative B would significantly increase to 16 ACEC totaling 1,605,660 acres. As a result of this increase, designated management areas would decrease to 183,938 acres because "the existing management areas would be designated as ACECs under this alternative." The Committee is greatly concerned with Alternative B increasing ACEC by 460%. There is no evidence to support a 460% increase in ACEC in the draft Rock Springs RMP. Alternative B is simply increasing areas to "protect important historic, cultural, wildlife and scenic values" while negatively impacting multiple use of these lands. I strongly disagrees with increasing ACEC by 460% and would recommend that the ACECs either remain at the current acreage amount or decrease. Alternative A is the choice for Wyoming. | The ACEC report can be found in Appendix C. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13412-1 | In addition, Alternative B would impose major restrictions along migration corridors. For example, Alternative B would "prohibit surface disturbing activities within ½ mile of big game migration corridors to avoid construction of a current or future identified big game corridors." In contrast, Alternative D would "allow fluid mineral surface occupancy and use within a Wyoming Game and Fish Department designated big game migration corridor if the fluid mineral operator and the BLM arrive at an acceptable conservation plan for avoidance, minimization, rectification and / or restoration within the migration corridor." I am concerned the alternative B is unnecessary and is a compromised approach between mineral development and production and protection of wildlife. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Management actions proposed for fish and wildlife under each alternative can be found in Table 2-1 #4400-4436. |
| 839 - General-FLPMA / Multiple Use | #13414-1 | Alternative B would significantly affect Wyoming's energy, mineral, agriculture, and recreation industries. Alternative B would close vast amounts of acreage to mineral development and production, livestock grazing, and recreation. These acreage closures imposed by Alternative B are extreme and completely disregards the Federal Land Policy and Management Act (FLPMA). The FLPMA requires the BLM to "manage the public lands under principles of multiple use and sustained yield." The United States Supreme Court has stated that "'multiple use management' is a deceptively simple term that describes the enormously complicated task of striking a balance among the many competing uses to which land can be put." These competing uses are outlined in the definition of multiple use under the FLPMA as "including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and uses serving natural scenic, scientific and historical values." The definition requires managing these uses "without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources." Alternative B fails to manage the Rock Springs planning area under principles of multiple use as the FLPMA requires. Alternative B nearly eliminates mineral development and production, recreation, and livestock grazing in favor of "natural scenic, scientific and historical values." Alternative B emphasizes a conservation-only approach. I | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and recognition of valid and existing rights. For the definition of multiple use, please see the Glossary section. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13493-3 | FLPMA requirements state that “balance wild horse and burro use with other resources” should be done, which equates to at least a 50-50 allocation of available forage between horses and livestock on WHTs. The EIS fails to address this. The EIS fails to address that FLPMA highlights the importance of the non-market value within its definition of the term “multiple-use.” FLPMA requires that: “(c) . . . consideration being given to the relative values of the resources, and not necessarily to the combination of uses that will give the greatest economic return, or the | Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern were addressed under a separate RMP Amendment and EIS (see Sections 1.3 and 2.2.5). See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. |

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| | | greatest unit output." The intrinsic value of wild horses and burros falls under the non-market definition specified by both laws (Sec. 302 of FLPMA). | |
| 839 - General-FLPMA / Multiple Use | #13494-3 | The EIS fails to consider the cumulative impact of eliminating additional wild horse HMAs in the state. Fifty percent (50%) of the original Congressionally designated wild horse habitat in Wyoming has been zeroed out or eliminated for wild horse use. Yet, the BLM continues to permit livestock grazing in these same areas. The EIS proposes to reduce by another 43% the public lands available to wild horses in the state. The cumulative impact of the proposal results in the BLM eliminating 71% of all public lands originally designated by Congress for wild horse use in the state of Wyoming. The proposed removal of wild horses from 1,554,282 acres of public lands represents removing wild horses from 6% of all public lands where BLM currently manages wild horses and burros. Currently, BLM only manages wild horses and burros on 64% of the original public lands identified by Congress for wild horse and burro habitat. That means since 1971 the BLM has cumulatively reduced wild horse and burro habitat by 37%. BLM has wiped out wild horses and burros from more than 1 of every 3 acres of public lands which Congress designated "principally" for wild horse and burro usage. The EIS fails to consider these cumulative negative impacts on wild horses and fails to take actions to mitigate these negative impacts. | Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern were addressed under a separate RMP Amendment and EIS (see Sections 1.3 and 2.2.5). See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. |
| 839 - General-FLPMA / Multiple Use | #13512-4 | Alternative A or Alternative D Alternative A and D both adhere to the multiple-use mandate under FLPMA. In Alternative B, elimination of the WWEC corridor conflicts with Section 368 of the Energy Policy Act of 2005, and MA 6206 cannot be read consistently with MA 6201. See also MA 6201, 7017, Map 2-22. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and the Energy Policy Act of 2005. Proposed management actions for right of way corridors can be found in Table 2-1 #6200-6210. |
| 839 - General-FLPMA / Multiple Use | #13512-5 | MA 6201 (ROW Exclusion Areas) Alternative A Alternative A complies with the multiple-use mandate under FLPMA by considering the production of soda ash and allowing responsible development within established routes and corridors in previously disturbed areas. In Alternative B, MA 6201 cannot be read consistently with MA 6206 and 6210. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and recognition of valid and existing rights. Proposed management actions for right of way corridors can be found in Table 2-1 #6200-6210. |
| 839 - General-FLPMA / Multiple Use | #13512-8 | MA 7017 (Overland Trail) Alternative A or Alternative D with the addition of the Overland Trail Alternative A and D both adhere to the multiple-use mandate under FLPMA. If Alterative D is adopted, it should be revised to include the Overland Trail, so the historic context is carried forward. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Management actions proposed for congressional designated trails under each alternative can be found in Table 2-1 #7000-7022. |
| 839 - General-FLPMA / Multiple Use | #13512-10 | A. BLM's Proposed Alternative B ROW Exclusion Areas Directly Conflict with BLM's Existing ROW Corridors and ROW Policies and Objectives. Alternative B's ROW Exclusion Areas are materially at odds with BLM's policies and objectives. As a threshold matter, BLM's expressly stated objective from the BLM Rights-of-Way Manual 2801 (the "BLM ROW Manual") is to "[r]ecognize that ROWs are a principal or major use of the public lands."4 The BLM ROW Manual further provides policy and program direction for BLM's management of ROW grants under the multiple-use mandate5 of the Federal Land Management Policy Act ("FLPMA"). BLM's ROW objectives and policy thoughtfully encourage the co-location of ROWs and the use of ROW corridors. | The Draft EIS, including all four alternatives, are in compliance with BLM policy for rights-of way management. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and recognition of valid and existing rights. Proposed management actions for right of way corridors can be found in Table 2-1 #6200-6210. |
| 839 - General-FLPMA / Multiple Use | #13557-1 | For years the industries in Southwest Wyoming such as, agriculture, mining, and oil and gas, have worked hand in hand with the BLM in crafting a plan that allows for multiple use of public lands. The preferred plan of the BLM, Alternative B, goes against this approach with has been used for years. Alternative B allows too many constraints to be placed on the industries that not only support Southwest Wyoming, but the entire State. If this alternative were to be put in place, thousands of people in Wyoming from agriculture, oil and gas, and mining would be out of a job, not to mention the auxiliary businesses that service these industries. While I believe that conservation of certain areas is also important, all of this must be, and can be, balanced. The economy of Southwest Wyoming and the jobs of thousands of people cannot be decimated so most of the land can be conserved. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. |
| 839 - General-FLPMA / Multiple Use | #13572-1 | The heavy impact to Mineral and Fluid leasing does not seem to be in alignment with the Federal Land Policy and Management Act in regard to multi use | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. Proposed management actions for oil and gas under each alternative can be found in Table 2-1 #2200-2222. |
| 839 - General-FLPMA / Multiple Use | #13585-1 | Through these years, the County had thought there was some collaboration with the Bureau of Land Management ("BLM") and other cooperators in developing an alternative that was not completely finalized but headed in the direction of a more balanced alternative that recognized the BLM's obligation of managing federal lands for multiple use and sustained yield. However, behind closed doors and without any coordination with the County or other cooperating agencies, the BLM has taken a complete politically driven reversal from its original direction, and released a proposed RMP and DEIS that eliminates multiple use within the RSFO and in turn, Sweetwater County. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13585-2 | The Federal Land Policy and Management Act ("FLPMA") requires the BLM to "coordinate the land use inventory, planning, and management activities of or for [public] lands with the land use planning and management programs ... of the States and local governments within which the lands are located." 43 U.S.C. § 1712(c)(9). As part of this coordination, the BLM is to provide "meaningful public involvement of State and local government officials, both | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency |

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| | | elected and appointed, in the development of land use programs, land use regulations, and land use decisions for public lands." Id. This includes the requirement to "develop resource management plans collaboratively with cooperating agencies" and with"meaningful public involvement of other Federal agencies, State and local government officials." 43 C.F.R. § 1610.3-l(a)(4) - (5); see International Snowmobile Mfrs. Ass'n v. Norton, 340 F. Supp. 2d 1249, 1261-62 (D. Wyo. 2004). Local governments must be provided with an "opportunity for review, advice, and suggestion on issues and topics which may affect or influence other agency or other government programs." 43 C.F.R. § 1610.3-l(c). In addition, "Field Managers should also collaborate with cooperating agencies in evaluating the alternatives and developing a preferred alternative." BLM Handbook 1601, Section l.E.2.c; see id. at Section 9.2.7.3 ("Whereas the BLM must work with cooperators and other interested parties to encourage consensus on a preferred alternative "). The National Environmental Policy Act ("NEPA") and its implementing regulations also recognize the importance of cooperation with State and local governments early in the NEPA process. 42 U.S.C. § 433 l(a); 40 C.F.R. § 1501.8(a), (b)(l) (2020); see also Department oflnterior, 516 DM 11, Section 1l.4(C) (Dec. 10, 2020). During the long history of the RMP revision process, the BLM focused early on in the 2012 cooperating agency meetings on editing the BLM's proposed Alternatives Band C. See DEIS at Table 5-1. However, after these discussions and revisions were made, the BLM made few, if any, substantive changes to these Alternatives after 2013. Alternative B was conveyed as representing a bookend or placeholder versus being functional or reasonable. The BLM and the cooperating agencies instead put all their focus on developing Alternative D, which was referred to as the Balanced Alternative, starting in 2015. It was at this point that the focus of all cooperating agency meetings was on developing Alternative D and the analysis associated with that alternative. See e.g. Attach. 1, Field Manager Email (May 20, 2019). By April 3, 2017, the Field Manager had identified Alternative Das the agency's preliminary preferred alternative. Attach. 2, Field Manager Letter (April 3, 2017). When the Administrative DEIS was released to cooperating agencies at the end of 2019, Alternative D continued to be identified as the agency's Preferred Alternative and was the focus of cooperating agency comments. See Attach. 3, Field Manager Email (March 15, 2018). At the direction of the BLM, because Alternative B was communicated as not a realistic conclusion, and due to Alternative D becoming the agency's preferred alternative by at least early 2017, the cooperating agencies spent a majority of their time and efforts on working with the BLM to develop Alternative D, refine this alternative, and focus their comments on this alternative. Cooperators were explicitly directed not to focus on Alternative B. With this focus, the cooperators were not provided with meaningful participation in developing Alternative B since 2013, nor did Alternative B receive much attention after 2013. It has been about 10 years since the BLM or the cooperators spent any time on refining or adjusting Alternative B, even after working on the environmental impact sections of the DEIS. The cooperators were not provided with meaningful involvement in developing Alternative B. See 43 C.F.R. § 1610.3-l(a)(4) - (5); see also International Snowmobile Mfrs. Ass'n v. Norton, 340 F. Supp. 2d at 1261-62. In addition, the cooperators had zero involvement with the selection of Alternative B as the Preferred Alternative. At one of the last cooperating agency meetings on July 14, 2020 (see DEIS at Table 5-1) and after receiving comments on the Administrative DEIS, the BLM continued to identify Alternative D as the Preferred Alternative. Then again on June 22, 2022, after two years of not meeting with cooperating agencies, the BLM provided an update on the status of review of the DEIS and amendments that were made to the Preferred Alternative D to reflect current BLM policy and direction. It was not until the release of the Proposed RMP and DEIS to the public a year later, in August of 2023, where Sweetwater County and other cooperating agencies were made aware of the BLM's dramatic shift in its preferred alternative to the most conservative of all alternatives, Alternative B, which was neither reasonable nor ready for submission. The dramatic shift from Alternative D to Alternative B negates the decade long collaboration and efforts of both BLM and cooperating agencies in developing the Alternative D. It further goes against BLM's own policy to work collaboratively with cooperating agencies in developing and working to reach consensus on a preferred alternative. See BLM Handbook 1601, Section l.E.2.c; see id at Section 9.2.7.3. All the cooperating agencies' focus, and commenting was directed to Alternative D and emphasized to them that this was going to be the Preferred. | with FLPMA and state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. |
| 839 - General-FLPMA / Multiple Use | #13605-2 | In Volume 1, Appendix E, pg. 219 of the DRMP/EIS: BLM land use planning and multiple-use management decisions will recognize that, with few exceptions, mineral exploration and development can occur concurrently or sequentially with other resource uses. The least restrictive stipulations that effectively accomplish the resource objectives or uses will be used. The BLM will coordinate with surface owners when the Federal minerals estate under their surface ownership is proposed for development. Alternative B restricts mineral and oil and gas land use by 258% ('Withdrawal from Mineral Location') and 305% ('Closed to Fluid Mineral Leasing') respectively without including the additional restrictions caused by 'No Surface Occupation', 'Controlled Surface Use', and 'Seasonal Restrictions'. These restrictions appear to be very skewed and in direct contradiction of the BLM's statutory assigned purpose as seen above. | Please see Glossary for a definition of 'withdrawal'. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and recognition of valid and existing rights. The definition of "multiple use" can be found in the Glossary section. Proposed management actions for oil and gas (fluid minerals) under each alternative can be found in Table 2-1 #2200-2222 and locatable mineral management actions can be found in #2000-2001. |
| 839 - General-FLPMA / Multiple Use | #13624-44 | Mineral Withdrawals Alternative B has significant implications for development and extraction of fluid and solid mineral reserves within the RMP boundary. The proposed mineral leasing restrictions, rights-of-way exclusions and management of lands to protect wilderness characteristics (or values) would effectively withdraw mineral reserves within defined resource boundaries, including the KSLA and the Coal Development Potential Area. This proposed action appears to be an incorrect application of the Federal Land Policy Management Act of 1976, as | Please see Glossary for a definition of 'withdrawal'. The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. |

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| | | amended, (FLPMA) and ignores the requirements for lawful withdrawal of minerals under the Federal Mineral Leasing Act of 1920, as amended, (FMLA). The withdrawal of minerals by implementation of the proposed management actions appear to exceed BLM's statutory authority under FLPMA and FMLA. In addition, WDEQ has primacy authority over solid mineral mining activities in Wyoming and BLM should have communicated its intent to withdraw solid mineral reserves and extraction opportunities, and coordinate any such actions, with WDEQ as a cooperating agency. | |
| 839 - General-FLPMA / Multiple Use | #13651-12 | Of particular concern is the need to consider landscape scale conservation, particularly in the checkerboard of the railroad corridor which is central to the Rock Springs RMP. The exclusion of the checkerboard from plans to address landscape issues is unacceptable. BLM has statutory authority under the Federal Land Policy and Management Act (FLPMA) to promote conservation measures in coordination with other federal and non-federal entities and private landowners. The Bureau's proposed Public Lands Rule will further clarify these responsibilities. The Rock Springs RMP rightfully should recognize landscape conservation as a primary issue for consideration and propose management actions to coordinate conservation at a landscape scale. | BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and acknowledgment that no decisions will be made relative to non-BLM administered lands. |
| 839 - General-FLPMA / Multiple Use | #13651-13 | This management plan and impact statement can make a meaningful contribution to agency goals under FLPMA. To do so it should avoid an error of a too narrow view of direct and cumulative impacts. We note that all actions the documents describe seem to stop at the public land boundaries within the planning area and at the boundaries of the planning area. This matches the legally insufficient practice in EISs for grazing management in which direct, indirect and cumulative impacts on other resources were given insufficient consideration. | Types of impacts are discussed in Section 4.2.1. Adequate analysis of direct and indirect impacts for each resource under each alternative is provided in Section 4 and cumulative impacts are provided in Appendix T. |
| 839 - General-FLPMA / Multiple Use | #13658-1 | It is clear that BLM is attempting to use the RSFO RMP and the agency preferred alternative to focus solely on land preservation, eliminating oil and gas and other uses within the RSFO. In doing so, BLM fails to fulfill its statutory requirements to manage lands for multiple use and neglects its duty under NEPA to conduct complete and accurate analyses of the alternatives and the impacts. Instead of a reasonable approach that follows BLM's mandate for multiple use, the agency preferred alternative shifts future management of these lands to a single use. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13658-2 | BLM will say the preferred alternative focuses on conservation, but this really is not true. The definition of conservation in this context is protecting natural resources for use by current and future generations. This indicates that conservation would allow lands to be used for responsible development of the resources such as oil and gas, mining, and recreation. The agency preferred alternative does not meet the definition of conservation as it will eliminate the ability to use lands for these purposes. BLM's preferred alternative is really preservation, which as defined in this context means preventing use of the lands for responsible development of the natural resources. This is exactly what is proposed in Alternative 8. | The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and NEPA, and recognition of valid and existing rights. |
| 839 - General-FLPMA / Multiple Use | #13658-20 | On page 4-11, BLM states that Alternative B most closely aligns with the Department of Interior's climate change priorities among all the alternatives. BLM should not be attempting to align its selection of alternatives with the DOI or this administration's climate change priorities, but with FLPMA and the MLA. These laws have multiple use mandates, which BLM is ignoring in its selection of Alternative B. | The BLM is an agency within the Department of Interior. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13663-2 | The Agency's preferred Option B is anything but balanced and diverse focusing on multiple use as it overwhelmingly and heavily favors conservation above all else, in direct opposition to its directive from the Federal Land Policy and Management Act of 1976. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13665-6 | BLM contends that "[t]he Rock Springs RMP will address changing needs of the planning area … while ensuring that public lands are managed according to the principles of multiple use identified in FLPMA … . " RMP Draft EIS at 1-2 (emphasis added). It even identifies "maintain[ing] or enhance[ing] opportunities for mineral exploration and development while protecting other resource values" as one of its goals. Id. at 2-26 (emphasis added). But this could not be further from the truth. BLM's preferred alternative, Alternative B, prioritizes conservation at the cost of everything else. Under FLPMA, Congress instructed BLM to manage public lands "on the basis of multiple use and sustained yield," 43 U.S.C. § 1701(a)(7)-not based on an environmentally protective framework to the exclusion of other uses. Thus, "[t]he objective of resource management planning by [BLM] is to maximize resource values for the public through a rational, consistently applied set of regulations and procedures which promote the concept of multiple use management." 43 C.F.R. § 1601.0-2. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13665-9 | Similarly, in the Mining and Minerals Policy Act of 1970, 30 U.S.C. § 21a, "Congress declare[d] that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in … the orderly and economic development of domestic mineral resources … to help assure satisfaction of industrial, security and environmental needs."5 As such, Congress expressly stated that "[i]t shall be the responsibility of the Secretary of the Interior to carry out this policy when exercising his authority under such programs as may be authorized by law other than this Act." Id. (emphasis added). In other words, BLM (through its authority delegated from the Secretary) must follow this express policy of fostering the development of domestic mineral resources when engaging in land-planning exercises and authorizations under FLPMA and the MLA. BLM's initial description of its preference, Alternative B, does not even acknowledge resource development as one | The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies; and recognition of valid and existing rights. |

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| | | of the agency's primary considerations, let alone one of the priorities set out by Congress. It simply states: "Alternative B emphasizes conservation of resource values with constraints on resource uses. | |
| 839 - General-FLPMA / Multiple Use | #13665-10 | As illustrated by FLPMA's legislative history,6 ACECs were intended to be narrow designations with management prescriptions tailored to protection of the specific resource requiring the designation. As one Senate Report states, [The ACEC] category is not designed to be a 'no growth' category. Only uncontrolled development is unwanted. The adjective 'incompatible' is present to make certain that development is to be allowed which is compatible with the basic environmental or renewable resources values or safety problems of the land in question. In short, multiple use, when planned, is clearly expected. Secondly, the category has been subdivided into subcategories to pinpoint the basic values of the land involved so as to better provide opportunities for development which can demonstrate its compatibility with such values. S. Rep. 95-734 O, at 128 (1973). This language demonstrates that Congress never intended the designation of ACECs to override multiple-use management. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies; and recognition of valid and existing rights. Proposed management actions for individual ACECs under each alternative can be found in Table 2-1 #7400-7570, and ACEC eligibility reports can be found in Appendix C. |
| 839 - General-FLPMA / Multiple Use | #13672-6 | The Executive Summary on pages ES-2 and ES-3 and in Planning Issues Page 1-3, Section 1.3 indicates that Greater Sage Grouse Resource management and Wild Horse management have not been incorporated into the Draft RMP. Also, the Purpose and Need section (Sections 1.2, 1.2.1, and 1.2.2) addresses "Numerous Records of Decision (ROD) for Programmatic EISs that have been completed or are ongoing," but omits greater sage grouse and wild horses. The Draft RMP has been in development since 2011 and the Greater Sage Grouse Management Plan has been in development since 2014. Both of these plans represent the management actions to be taken on large BLM land areas within the planning area. These plans should be evaluated together and not separately or separated in time. The public has the right to review the total impact of both of these plans. Ample time has passed for both of these plans to be part of the same Draft RMP. The public, including users of BLM lands cannot accurately evaluate the impacts of these plans in this way. A BLM News Release on February 3, 2014 indicated that work on the draft RMP would be put on temporary hold until the Wyoming Greater Sage-Grouse Land Use Plan Amendment and EIS could be completed and incorporated into the Rock Springs RMP. This omission is serious and not to be overlooked. FLPMA and NEPA provide the public with the right to review these plans and their benefits and impacts. Since this cannot be done in anything close to a comprehensive way, the Draft RMP is incomplete and should be withdrawn until both the Greater Sage Grouse Management plan and the Wild Horse Management Plan are incorporated into it. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). |
| 839 - General-FLPMA / Multiple Use | #13680-2 | These acreage closures imposed by Alternative B are extreme without proven reason, and completely disregards the Federal Land Policy and Management Act (FLPMA). The FLPMA requires the BLM to “manage the public lands under principles of multiple use and sustained yield” which Alternative B does not comply with. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13702-1 | Sage grouse management plan is not incorporated in the Draft RMP. The Executive Summary pages ES-2 and ES-3 and Planning Issues Page 1-3, Section 1.3 indicate that Greater Sage Grouse Resource management and Wild Horse management have not been incorporated into the Draft Resource Management Plan (RMP). Also, the Purpose and Need section (Sections 1.2, 1.2.1, and 1.2.2) address "Numerous RODs for Programmatic EISs that have been completed or are ongoing," but omit greater sage grouse and wild horses. Both resources represent potential significant risks and impacts to various groups of land users that cannot be evaluated accurately for this RMP when they have not been incorporated. Land users should have the right to evaluate these risks and impacts in aggregate as well as evaluate whether the multiple use principles of the Federal Land Policy and Management Act (FLPMA) are being upheld given that these planning efforts have been in development for over 10 years. As a case in point, a BLM News Release on February 3, 2014 indicated that work on the draft RMP would be put on temporary hold until the Wyoming Greater Sage-Grouse Land Use Plan Amendment and EIS could be completed and incorporated into the Rock Springs RMP. By not incorporating these two resources the BLM has changed course to the detriment of informed public participation. | The ongoing Greater Sage-Grouse Amendment will amend the RMP for the Rock Springs Field Office. The previous Greater Sage-Grouse Amendments in 2015 and 2019 amended the 1997 Green River RMP and are in effect today as part of the No Action alternative (Alt A) of this document. Additionally, the 2023 Wild Horse Amendment relating to the four checkerboard HMAs is also now part of the No Action Alternative (Alt A). |
| 839 - General-FLPMA / Multiple Use | #13706-4 | A balanced approach that accommodates sustainable energy development, economic growth, recreational access, and conservation efforts is vital. We advocate for a revised plan that respects the interests of all stakeholders, including agriculturalists, electric utilities, local communities, recreational users, and conservationists. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13721-12 | Preferred Alternative B appears to conflict with and likely be in violation of BLM's statutorily assigned multiple purposes: ? The Federal Land Policy and Management Act of 1976, as amended, is the Bureau of Land Management's "organic act" that establishes the agency's multiple-use and sustained yield mandate to serve present and future generations. It reiterates that the 1970 Mining and Minerals Policy Act shall be implemented and directs that those public lands be managed in a manner that provides multiple uses this includes motorized access that benefits both recreation and industry both of which are large economic drivers in the state. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |

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| 839 - General-FLPMA / Multiple Use | #13727-1 | We are concerned that you have failed to listen to your cooperating partners who have been meeting with BLM for over a decade and up until August of this year were all negotiating Alternative D as the acceptable alternative. By neglecting to take in to account the concerns of your cooperating agencies you have violated your own rules. The CA role derives from the National Environmental Policy Act of 1969, which calls on Federal, State, and local governments to cooperate with the goal of achieving “productive harmony” between humans and their environment (42 U.S.C. 4321–4347). The regulations of the Council on Environmental Quality (CEQ) that implement NEPA (40 CFR Parts 1500–1508) allow Federal agencies— as lead agencies—to invite State, local, and tribal governments, as well as other Federal agencies, to serve as CAs in the preparation of EISs. Additionally, in accordance with the Federal Land Policy and Management Act (FLPMA) of 1976, in the development and revision of land use plans, the BLM has an independent responsibility to coordinate with other units of government (43 U.S.C. 1712(c)(9)) The local agencies have been implicit that alternative B would be devastating to the local communities | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13728-1 | nder FLPMA (43 USC 1712 (1976]), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands such as state or private property. BLM must better align with local county natural resource management plans. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13750-3 | The National Environmental Policy Act (NEP) establishes a national policy and goals for the protection, maintenance, and enhancement of the environment. Two key requirements of NEPA are that agencies consider alternatives and that the public officials and citizens are involved in the decision-making process. NEPA established a Council on Environmental Quality (42 US Code [USC] 4321 (1970)), which issued regulations for implementing provisions of the law (40 Code of Federal Regulations [CFR] 1500-1508 (19701). In these regulations is the requirement that federal agencies to consider and use local planning documents during their decision making and planning efforts (40 CFR 1506.2 (1978) and 43 CFR 1610.3-2(a) (19831). Furthermore, the Federal Land Policy and Management Act (FLPMA) provides a framework for managing public lands that requires a systematic, interdisciplinary approach and requires coordination in land-use planning with other state and federal agencies. Under FLPMA (43 USC 1712 [19761), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands such as state or private property. BLM must better align with local county natural resource management plans. The Preferred Alternative "B" does not meet the mandate of multiple use and sustained yield as provided in FLPMA and it appears to solely support the management of conservation or preservation of lands in the RMP area through special designations including a historic level of Areas of Critical Environmental Concern (ACECs), limited or no leasing of minerals and land use allocations, restrictions for access to federal lands, along with other restrictive management prescriptions. This is unacceptable and our County clearly cannot support such a document that has negative impacts on our local communities and the State. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and NEPA, and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13751-5 | Further, the Draft RMP/DEIS provides a definition in the glossary for Multiple Use. The definition is an apparent reference to the Multiple Use Sustained Yield Act of 1960 (MUSYA). MUSYA was directed to the US Forest Service with a clear emphasis on "…renewable surface resources…" The reference to MUSYA reflects a narrowing of perspective brought to development of this Draft RMP/DEIS. This narrowing of perspective ignores what Congress mandated to the BLM under 43 CFR (Federal Land Policy and Management Act of 1976, FLPMA) that the BLM will manage the public lands under principles of multiple use. The term multiple use is defined in the FLPMA as "…the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." This narrowing of perspective ignores the FLPMA definitions inclusion of "…various resources…" which in part explains the Preferred Alternative emphasis on preservation of "surface resources" which are the focus of the MUSYA. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13751-6 | In the transmittal letter Director Archuleta states the BLM has "prepared this document in consultation with cooperating agencies, and in accordance with the National Environmental Policy Act of 1969, as amended, the Federal Land Policy and Management Act of 1976, as amended, implementing regulations, the BLM's Land Use Planning Handbook (H-1601-1), and other applicable law and policy." BLM has chosen to ignore parts of FLPMA and NEPA and its planning regulations and implement MUSYA (a Forest Service directive) and an EO as the guiding principle for this RMP update. Executive Orders must not override existing statutes and rules. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13751-24 | No advance notice of the change to a greatly expanded Alternative B was provided to cooperators or the public. With publication of the Draft roughly 4 years later, we were confronted with a document with significant errors, insufficient analysis to support the new Preferred Alternative, etc. Cooperators were lulled into believing Alternative D would be the Agency's preferred option. BLM never involved the cooperators or anyone else for several years while knowing the original communication in 2019 fundamentally misled everyone. No analysis was undertaken to | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and NEPA, and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |

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| | | justify this new selection of an expanded Alternative B. Such action violates BLM's own procedural obligations and substantively violates FLPMA's multiple use analysis mandates. | |
| 839 - General-FLPMA / Multiple Use | #13751-98 | BLM has substituted Executive Orders for the mandates of FLPMA. It is not unusual for a federal administration to tilt the interpretation of FLPMA in preferred policy directions as reflected in Presidential Executive Orders. In the context of this Draft RMP, BLM has admitted that adherence to Executive Orders overrides FLPMA. BLM has failed to meet it mandate of multiple use with the proposed plan. Engagement with stakeholders, interested parties and cooperators is nearly a decade old. The decision to hastily complete the document without further engagement/consultation defeats the mandates and spirit of both NEPA and BLM's own guidance. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13754-5 | The Associations remind the BLM that the requirements of the Energy Policy Act of 2005, as well as the Energy Policy Conservation Act Amendments of 2000, that require federal land management agencies to use the least restrictive means necessary to protect other resource values. Blanket closure to a principal use of public lands is not the least restrictive means.12 Moreover, blanket closure is inconsistent with the BLM's own Land Use Planning Handbook. The Land Use Planning Handbook provides that areas should only be closed to leasing when "other land or resource values cannot be adequately protected with even the most restrictive lease stipulations." BLM Handbook H-1601, App. C at 24 | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. See Section 2.2.4 for alternatives considered but eliminated from detailed analysis, including closing the planning area to new leasing of federal minerals, livestock grazing, and coal leasing. |
| 839 - General-FLPMA / Multiple Use | #13755-7 | Further, blanket prohibitions on surface use in wildlife habitat is at odds with Wyoming Game and Fish Department management planning. In matters of wildlife management, the federal government must yield to the jurisdiction of the state.3 Here, Wyoming has applied conservative approaches to managing big game throughout the State and within the Rock Springs planning area, including seasonal restrictions. For instance, the Wyoming Game and Fish's Recommendations for Development of Oil and Gas Resources Within Important Wildlife Habitat, Version 6.0, Table 1 (Apr. 2010), recommends seasonal closures, rather than wholesale exclusion areas, in crucial big game habitat. BLM's proposal to override the State's balanced wildlife management scheme is contrary to multiple use management and the federal government's FLPMA obligation to follow the State's lead on wildlife protection. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA, as well as BLM's recognition of the State's responsibility and authority to manage wildlife. Proposed fish and wildlife management actions for each alternative are provided in Table 2-1 #4400-4436. |
| 839 - General-FLPMA / Multiple Use | #13759-2 | I would like the RSFO to go deeper with perceived threats and changes from climate change and adjust management goals accordingly. To show good example, the Redding and Arcata Field Offices in California are establishing a new RMP and Draft EIS as well. On the Federal Register notice of availability, it states, "Management would maintain habitat connectivity and resiliency, promote carbon sequestration by providing for the long-term health and productivity of vegetation communities, and implement best management practices to reduce emissions of greenhouse gases for authorized activities in accordance with regional and state climate goals," (BLM & DOI, 2023). It would behoove the RSFO to approach climate change with this level of detail as the planning area is not immune to any changes related to climate. | See BLM's commitment to bolster resilience to the impacts to climate change under Executive Order 13990 on page ES-1. Analysis for impacts to air quality from each proposed alternative can be found in Section 4.3 of the DEIS. Cumulative impacts to air quality, including greenhouse gases and climate change are found in Appendix T.1.3. |
| 839 - General-FLPMA / Multiple Use | #13779-2 | The preferred alternative maximizes conservation values, largely to the exclusion of other uses of public lands. This outcome is not only counter to the Federal Lands Policy Management Act but also to the current administration's stated renewable energy and climate goals | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13779-16 | Given the need for rapid expansion of development to meet the national renewable energy production goals for public lands, ACP strongly encourages BLM to evaluate ways in which Alternative C may be revised (specifically considering the projections for renewable energy development and the current state of the science on renewable energy interactions with wildlife and their habitats) to align with the agency's conservation efforts and adopted as the preferred alternative. Such an alternative would meet BLM's obligations under FLPMA, align with the Biden-Harris Administration's climate policy, and support progress toward renewable energy production goals for public lands. This alternative would also be consistent with Executive Order 13990 to reduce the impacts of climate change from federal agency actions. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. Four alternatives have been analyzed (See Chapter 2 for specific actions and Chapter 4 for analysis). Analysis of impacts to renewable energy resources under each alternative is provided in Section 4.20. |
| 839 - General-FLPMA / Multiple Use | #13779-17 | BLM must manage lands in a way that protects important ecological, historical, environmental, and archaeological values, while at the same time recognizing the Nation's need for, among other things energy.43 Renewable energy development falls squarely within this mandate; not only does it meet today's energy needs, but it will meet the needs of future generations, while at the same time helping to prevent the worst impacts of climate change. Indeed, without a transition to renewable energy, climate change could jeopardize the ability of public lands to meet the needs of future generations. According to the BLM the preferred alternative "maximizes conservation goals." While ACP agrees that lands can be managed for conservation, management must still allow for multiple other uses. The proposed alternative maximizes conservation to such an extent that it effectively bars multiple other uses- including renewable energy development. Such an outcome is not consistent with BLM's obligations under FLPMA. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13783-4 | BLM's preferred Alternative B fails to represent a balanced approach to land use planning and fails to meet BLM's statutory obligation to manage for multiple uses. BLM proposes to close over half of the planning area (2.2 million acres) to oil and gas leasing and assign almost as much land (800,000 acres) to the No Surface Occupancy ("NSO") leasing category. Draft EIS at 4-23. By contrast, the current Green River RMP designates only 540,000 | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |

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| | | acres as closed to leasing and a tiny fraction of the area (159,000 acres) as NSO. Draft EIS at ES-4. Alternative B would also increase right-of-way exclusion areas (necessary for pipelines, transmission, and roads to support all types of development, including oil and gas) from about 427,000 to 2,481,000 acres-an incredible increase of over two million acres. Draft EIS at 4-24. This massive restructuring of land use priorities is anathema to multiple use, and elevates environmental conservation (non-use) and the Administration's climate change agenda above local and stakeholder needs. Indeed, the Draft RMP provides that its "purpose … is to provide an updated, comprehensive and environmentally adequate framework for managing and allocating uses of public lands and resources[.]" Draft EIS at 1-2 (emphasis added). | |
| 839 - General-FLPMA / Multiple Use | #13783-5 | BLM admits that President Biden's Executive Order ("EO") 13990 is driving the proposed shift toward environmental protection as the preeminent "use" of the Rock Springs planning area to the exclusion of multiple uses. EIS at ES-1; see Executive Order 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis. EO 13990 directs agencies to prioritize, among other things, actions to "protect our environment, … reduce greenhouse gas emissions, identify steps to accelerate responsible development of renewable energy on public lands, … bolster resilience to the impacts of climate change, and center equity and environmental justice." Id. And, these prescriptions match Alternative B's outcomes. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and NEPA, and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). BLM adequately consulted cooperating agencies in the development of all alternatives. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. |
| 839 - General-FLPMA / Multiple Use | #13783-6 | BLM's tunnel vision also contradicts Congress's mandate that BLM take into account the effects of planning efforts on local stakeholders. While FLPMA's regulations do permit BLM to consider national-level policy like EO 13990, the regulations do not allow BLM to disregard nearly all uses that benefit local economies. 43 C.F.R. §§ 1601.0-8; 1610.1(a)(1). Alternative B effectively forecloses economic use-oil and gas, mining, renewable energy development, and others-on half of the Rock Springs planning area, and severely restricts it over much of the remaining areas. Neglect of economic uses is also neglect of more specific considerations such as "the impact on local economies," and the "[d]egree of local dependence on resources from public land[.]" 43 C.F.R. §§ 1601.0-8, 1610.4-4. Disregard for these economic considerations and their adverse effect on local communities cannot meet FLPMA's multiple-use mandate. BLM accomplishes its protectionist goals primarily through draconian land use restrictions in Alternative B, including designation of vast ACECS, placement of giant buffers limiting rights-of-way and other uses near historic trails, and exclusion of surface uses in wildlife habitats. None of these actions is sufficiently supported in the Draft RMP and the restrictions singularly, and in concert, violate BLM's obligation to allow for multiple uses and sustained yield. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. Proposed management actions for individual ACECs under each alternative can be found in Table 2-1 #7400-7570, and ACEC eligibility reports can be found in Appendix C. Proposed management actions for rights-of-way and corridors can be found in Table 2-1 #6200-6210, management actions proposed for fish and wildlife under each alternative can be found in Table 2-1 #4400-4436, and management actions for congressionally designated National Historic Trails can be found in Table 2-1 #7000-7022. |
| 839 - General-FLPMA / Multiple Use | #13787-74 | MA #6000 LR-06, LR-07, LR-02, BR- 24 Access to public lands would be provided throughout the planning area. Where necessary and consistent with off-road vehicle (ORV) designations, access would be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values. Easements would be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres) Appendix K. Industry Position: Acceptable Evaluate, on a case-by-case basis, access needs to public, state, and private land within the planning area. Restrict access where necessary to protect public health or safety and sensitive resources. Consider, when requested by the land owner, access across public land to isolated private and state land consistent with the guidelines and objectives set forth in FLPMA and existing regulatory requirements. Industry Position: Not acceptable Reason: The RMP area is a checkerboard so reference to isolated private and state sections is not accurate. Restriction of access goes against FLPMA. Same as Alternative A Industry Position: Acceptable Restrict or close access where necessary and consistent with OHV designations: 1) in specific areas to protect public health and safety; and 2) to protect significant resource values. Pursue easements where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (Appendix K). Industry Position: Not acceptable Reason: Restriction of access goes against FLPMA. Access to minerals and other values must continue to be available. Alternatives A and C are acceptable. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. For a list of management actions specific to off-highway vehicles, see Table 2-1 #6600-6620. |
| 839 - General-FLPMA / Multiple Use | #13811-3 | Alternative B also ignores BLM's inherent discretion in granting ROWs, and in requiring mitigation for potentially damaging activities. Moreover, Alternative B's dramatic shift to exclusion areas runs contrary to what BLM and stakeholders have been discussing throughout the entire RMP/DEIS development process. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. |
| 839 - General-FLPMA / Multiple Use | #13811-4 | In contrast, Alternative A restricts 0.4 million acres, Alternative C restricts 0.25 million acres, and Alternative D restricts 0.4 million acres from trona leasing.12 And in the KSLA specifically, Alternative B removes 49,224 more acres from trona leasing in comparison to the currently available acreage for lease in the Green River RMP, which is a reduction of 101%. The Green River RMP grants BLM discretion to decide whether or not to grant leases and what restrictions to impose upon them. BLM could retain this discretion and achieve significant conservation goals without categorically removing millions of acres from trona leasing. BLM could use its discretion to balance the economic interests in trona development with its long-term conservation interests. Alternative B's categorical restrictions would not achieve that balance. | See Table 1 in the Executive Summary for a comparison of land use restrictions and allocations under each proposed alternative. Management actions for trona are provided in Table 2-1 #2408-2411, and analysis of impacts to trona under each alternative can be found in Section 4. 11. |

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| 839 - General-FLPMA / Multiple Use | #13826-18 | My understanding is that "The BLM is mandated by the 'Federal Land Policy and Management Act' to manage public lands in a manner that not only protects natural resources but "which recognizes the nation's need for domestic sources of minerals, food, timber, and fiber from the public lands" while providing for "outdoor recreation and human occupancy and use," and that management be on "the basis of multiple use and sustained yield." I believe that the proposed BLM Alternative B doesn't do this and in fact will do the exact opposite in its purpose and is in violation of this mandate. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13827-2 | We have concerns that meaningful consultation on this draft RMP has not occurred nor appropriate "capacity building" such as adequate compensation or formats and timelines that are conducive to representatives of Tribal Governments. The BLM should conduct follow-up consultation with at least the Tribal Government entities listed above, should they so desire, and strive to format that consultation to best meet the needs of Tribal Government representatives prior to the final record of decision on this document. | Tribal consultation has been ongoing throughout the EIS process and will continue. See updates to Section 5.3 as appropriate. |
| 839 - General-FLPMA / Multiple Use | #13829-1 | Furthermore, the Federal Land Policy and Management Act (FLPMA) provides a framework for managing public lands that requires a systematic, interdisciplinary approach and requires coordination in land-use planning with other state and federal agencies. Under FLPMA (43 USC 1712 [1976]), the BLM is required to stay apprised of local land use plans, assure consideration is given to local land use plans, assist in resolving inconsistencies with state and local land use plans, and provide meaningful opportunities for local government officials to participate in the development of land use programs, regulations, and decisions for public lands that may have a significant impact on non-federal lands such as state or private property. BLM must better align with local county natural resource management plans. The Preferred Alternative "B" does not meet the mandate of multiple use and sustained yield as provided in FLPMA and it appears to solely support the management of conservation or preservation of lands in the RMP area through special designations including a historic level of Areas of Critical Environmental Concern (ACECs), limited or no leasing of minerals and land use allocations, restrictions for access to federal lands, along with other restrictive management prescriptions. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and NEPA, and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. Proposed management actions for individual ACECs under each alternative can be found in Table 2-1 #7400-7570, and ACEC eligibility reports can be found in Appendix C. Proposed management actions for oil and gas (fluid minerals) under each alternative can be found in Table 2-1 #2200-2222. For a comparison of resource restrictions, closures, and allocations under each alternative, see Table 1 in the Executive Summary. |
| 839 - General-FLPMA / Multiple Use | #13829-2 | However, there is no meaningful discussion presented anywhere in the document that describes the management actions in detail nor did the BLM utilize the most recent county plans that were approved as follows: 1) Fremont County Natural Resource Management Plan 2021, 2) Lincoln County Natural Resource Management Plan 2021, 3) Sublette County Federal and State Land Use Policy 2021, 4) Sweetwater County Federal Lands and Resources Plan 2022 and S) Uinta County Comprehensive Plan 2021. | See updates to Table 1-2. All management actions proposed for each resource under each alternative can be found in Table 2-1. |
| 839 - General-FLPMA / Multiple Use | #13859-2 | While the DEIS alternatives represent the spectrum of issues and resource uses, the alternatives do not adequately reflect the complex and interrelated nature of resource management. BLM's development of alternatives should consider full integration of renewable energy development as an element of conservation of resource value. Alternative B, BLM's preferred alternative does not comply with Federal Land and Policy Management Act (FLPMA), which requires that all resource management plans observe multiple use principles. The preferred alternative effectively eliminates the opportunity for the development of renewables in the planning area because it fails to fully integrate multiple resource uses. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13859-3 | The FLPMA also provides no statutory context that either directs or authorizes the Secretary of the Interior nor the Bureau of Land Management to manage our nation's public lands for visual resources. This law does provide a specific definition for "public lands" which are defined as "…any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except- (1) lands located on the Outer Continental Shelf; and (2) lands held for the benefit of Indians, Aleuts, and Eskimos. Nor has the Secretary of the Interior or the Bureau of Land Management promulgated a rulemaking in accordance with FLPMA Section 102 (a)(5) to better define their ambitions in planning for and regulating visual resources | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and all other applicable laws, regulations, and policies. |
| 839 - General-FLPMA / Multiple Use | #13865-68 | "Remove roads, unimproved roads, two-tracks, and restore sagebrush habitat." As discussed previously, the need for utilities to access power lines is critical to the safe operation of the electrical grid. This access may include the use of improved or unimproved roads, or two-tracks. It is a violation of FLPMA to arbitrarily restrict or remove public access without notice or input. In order to prevent safety issues by restricting access, PacifiCorp recommends that the BLM modify the above stipulation to read: "Remove roads, unimproved roads, two-tracks, and restore sagebrush habitat, where this will not interfere with access to authorized ROWs or for safety purposes. The BLM will notify authorized users, including ROW holders, in the RSFO for any access road removal proposals, and provide adequate opportunity for public comment." | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and all other applicable laws, regulations, and policies. Travel and Transportation Management Planning, including specific route designations are implementation level actions and are outside the scope of this document. |
| 839 - General-FLPMA / Multiple Use | #13880-1 | To prevent future abuses of executive authority, Congress reserved to itself the authority to make permanent withdrawals of large tracts (of 5,000 acres or more),4 limiting BLM' s authority to enact unilateral withdrawals of large tracts only on a temporary basis of up to twenty years.5 If such withdrawals are intended, BLM must notify Congress, describing the parcel proposed to be withdrawn, explaining its mineral value, identifying stakeholder interests, and indicating whether any suitable alternative sites are available for the uses the withdrawal would displace.6 Under the preferred alternative, not only does BLM's proposal prioritize preservation at the sacrifice of nearly all other uses, ignoring the multiple-use mandate, but under all alternatives BLM proposes the withdrawal of | Please refer to the Glossary for a definition of 'withdrawal', which does not apply to fluid mineral leasing, solid mineral leasing, or mineral material sales (only General Land Laws such as the 1872 Mining Law). Please refer to the proposed management actions for all four alternatives that are described in Table 2.1. Expected impacts from each of the four alternatives can be found in Chapter 4. |

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| | | millions of acres from productive use for mineral development. While the State of Wyoming shares BLM's goal of maintaining healthy lands, the BLM's multiple use mandate must allow for the development of oil, gas, coal, trona, and other minerals essential as required under two key pieces of mineral legislation -- the Mining Law of 1872 and the Mineral Leasing Act of 1920. | |
| 839 - General-FLPMA / Multiple Use | #13880-2 | In a state with rich mineral resources like Wyoming, which also includes an abundance of productive public lands, limiting the development of mineral resources contravenes the clear purpose of the Mining Law of 1872, and the Mineral Leasing Act of 1920. Uses of BLM land for the mining of coal, critical minerals, and for oil and gas extraction are essential for America to expand emerging technologies and ensure national energy security. There is no genuine argument that rendering millions of acres of land unusable, either directly or indirectly, for not only mineral development-but also recreation, hunting, fishing, and grazing, "meet[s] the present and future needs of the American people." | Please refer to the Glossary for a definition of 'withdrawal', which does not apply to fluid mineral leasing, solid mineral leasing, or mineral material sales (only General Land Laws such as the 1872 Mining Law). Please refer to the proposed management actions for all four alternatives that are described in Table 2.1. Expected impacts from each of the four alternatives can be found in Chapter 4. |
| 839 - General-FLPMA / Multiple Use | #13880-5 | Severely restricting development or productive use of federal lands shifts the development to State and private lands, which do not have undue restrictions, to the detriment of the landscape and the people as a whole. Whether restrictions within this draft RMP come in the form of ROW exclusions, ACECs, other special designations, or inconsistent trail corridors, within or without the checkerboard, the impacts of these actions must be fully analyzed utilizing existing science and data. | Impacts to areas with private or state ownership are discussed in the cumulative impacts analysis section (Appendix T). |
| 839 - General-FLPMA / Multiple Use | #13892-1 | The Rock Springs RMP neglects to provide for the BLM's legal obligations as set by Congress in ensuring that public lands are managed according to the principles of multiple use and sustained yield as identified in the Federal Land Policy and Management Act (FLPMA) of 1976. The DEIS barely mentions "sustained yield" in its 1,330 pages, does not define the term, and does not provide for sustained yield as a goal, measurable objective, or action. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. The definition of "multiple use" can be found in the Glossary section. |
| 839 - General-FLPMA / Multiple Use | #13892-2 | FLPMA mandates that "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands." Yet the DEIS fails to mention food for humans at all (all references to food are to meeting the needs of wildlife, with the exception to expenditures made by recreation users). Likewise, the production of fiber from our public lands is also not mentioned - despite that Wyoming ranks #2 in the nation for wool production, with a substantial portion of this wool produced from ranches operating in the Rock Springs District. The DEIS fails to provide a description of the amount of food produced from these public lands | Please refer to Section 1.4 for the Planning Criteria governing this RMP process. |
| 839 - General-FLPMA / Multiple Use | #13912-10 | While BLM's refusal to permit activity on federal lands has inescapable implications for projects that span both private and federal lands, BLM most certainly cannot condition use of the federal lands by 1 The Federal Land Policy and Management Act ("FLPMA") requires that public lands be managed on the basis of multiple use and sustained yield. 43 U.S.C. § 1701(a)(7). FLPMA defines "multiple use" as "the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." 43 U.S.C. § 1702(c). It "include[s], but [is] not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values." | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. |
| 839 - General-FLPMA / Multiple Use | #13912-16 | Big Game Crucial Habitats. BLM proposes to close all "big game crucial winter ranges, parturition areas, migration corridors, and transitional habitats" to surface disturbance or disruptive activities (MA# 4421). As shown in Map 3-3, these important big game ranges encompass vast areas throughout the RMP, including much of the checkerboard lands north of Interstate 80 and along the western edge of the RMP area, which also happens to overlap with the Known Sodium Leasing Area ("KSLA"). If implemented, these severe restrictions would hamstring project development throughout the checkerboard, in violation of BLM's obligation to allow for multiple uses. | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. See management action #4421 in Table 2-1 for proposed management for all four alternatives relating to big game habitats. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and all other applicable laws, regulations, and policies. |
| 839 - General-FLPMA / Multiple Use | #13912-18 | The Fifth Amendment provides that private property shall not "be taken for public use, without just compensation." U.S. CONST. amend. V. The Takings Clause "does not bar government from interfering with property rights, but rather requires compensation in the event of otherwise proper interference amounting to a taking." Lingle v. Chevron U.S.A., Inc., 544 U.S. 528, 543 (2005) (citation and quotations omitted). The first, and most obvious form of taking, is the physical invasion of private property. Id. at 537. A physical invasion is a "direct appropriation of property, or the functional equivalent of a practical ouster of the owner's possession." Id. (quotations and citation omitted). But takings are not always physical-they can also be regulatory. If regulation of property is "so onerous that its effect is tantamount to a direct appropriation or ouster," that regulation may be compensable as a regulatory taking. Id. A regulatory taking may be total and "deprive[] [the] property of all value," or partial, "less than a 'complete elimination of value.'" Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 330, 330, 332 (2002) (citation omitted). To prove a taking, a property owner must show that the agency regulation or decision deprives the owner of "economically beneficial or productive use of" the property. Lucas v. S. Car. Coastal Council, 505 U.S. 1003, 1015 (1992). "[W]hen the owner of real property has been called upon to sacrifice all economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking." Id. at 1019. Under these circumstances, the taking is "categorical." Id. at 1015. Even where property maintains some economic value after its use is restricted, "if regulation goes too far it will be recognized as a taking." Mahon, 260 U.S. at 415. To determine what type of regulation goes "too far," courts consider factors such as "[t]he economic impact of the regulation on the claimant," interference "with distinct investment backed | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and all other applicable laws, regulations, and policies. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. |

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| | | expectations," and "the character of the governmental action." Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978). Sweetwater Royalties has numerous projects in development across its holdings that could be stalled or completely cancelled as a result of BLM's management regime. Some of these projects are discussed in the site-specific comments above. BLM's restriction of private land use through regulation of the checkerboard lands amounts to a taking of billions of dollars worth of projects in the works that benefit not only Sweetwater Royalties, but local communities, state and federal taxpayers, and far-reaching markets for clean energy and minerals. | |
| 839 - General-FLPMA / Multiple Use | #13953-2 | Since its release, the BLM has attempted to soften concerns over the detrimental impacts of the preferred alternative by reminding people that the RMP is only a draft, and the language can change before the final record of decision is signed. While this is true, it begs the question of why the BLM abandoned years of work on its previously preferred Alternative D without notifying cooperating agencies. The most readily drawn conclusion is that the BLM's preferred alternative is politically motivated3, far removed from the multiple-use and sustained yield mandate set forth in the Federal Land Policy and Management Act of 1976 (FLPMA). | Alternative B has been identified in the Draft EIS as the "Agency Preferred Alternative". The BLM has the authority to select elements of any of the four alternatives analyzed as the final Proposed RMP in the Final EIS in response to public comment and further review. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. |
| 839 - General-FLPMA / Multiple Use | #14020-1 | A. This RMP Revision should consider wild horse management as one of the various resource values that must be evaluated to ensure compliance with the BLM's multiple-use directive. 43 USC § 1702 (c) defines the term "multiple use" as "the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future need of the American people." Notwithstanding the Rawlins and Rock Springs Wild Horse RMP Amendment and pending litigation, true assessment of the various resourcevalues and how they are utilized to meet the present and future needs of the American people requires that this amendment be contextualized and examined during current revision planning. | See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations, and policies. Wild horse management for the four herd management areas that contain portions of the mixed private/public checkerboard land pattern were addressed under a separate 2023 RMP Amendment and EIS (see Sections 1.3 and 2.2.5). This Amendment is a part of the No Action alternative (Alt A) of this EIS. See also Sections 3.9 and 4.9 for Wild Horses and Burros "Affected Environment" and analysis of "Environmental Consequences." |
| 839 - General-FLPMA / Multiple Use | #14022-1 | SCCD is concerned that the process used by the Bureau of Land Management (BLM) to roll out the RMP to the Cooperating Agencies (CA) is in direct violation of Federal Land Policy and Management Act of 1976 (FLPMA), specifically regarding the involvement of local governments, for many reasons including: 1) Skipping the CA process for an "internal" review prior to the release to the public 2) BLM's lack of CA involvement, highlighted on page ES-7. 3) Lack of collaboration with CA's in Table 1.2 on page 1-6. The plans associated with SCCD are out of date and would have been corrected if the CA's had been communicated with prior to the release of the RMP. SCCD has updated our Long-Range Plan in 2020. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA and NEPA, and consistency with state and local government resource-related plans (see table 1-2 for a list of related local, state, and federal management plans that may pertain to the Rock Springs planning area). BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. See also updates to Table 1-2. |
| 839 - General-FLPMA / Multiple Use | #14024-1 | SCI encourages the BLM to adopt Alternative D, the "moderate approach," as the Preferred Alternative. Alternative D would advance conservation purposes, while also implementing a number of actions identified and requested by public comments and cooperating agency input and utilizing fewer special area designations and prescriptive actions than Alternative B. In short, Alterative D is more balanced and flexible, and protects public access for recreational purposes, including regulated hunting. That direction is far more consistent with the BLM's statutory obligations in the Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701 et seq. ("FLPMA"), than Alternative B. Therefore, the BLM should reconsider its Preferred Alternative and select Alternative D. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. See Sections 1.4-1.5 for adequate coverage of the planning criteria and requirements of BLM land use plans and amendments, including consistency with FLPMA and all other applicable laws, regulations and policies. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. |
| 839 - General-FLPMA / Multiple Use | #14024-2 | Alternative D is more consistent with FLMPA for a number of reasons, including two reasons that stand out. First, Alternative D is balanced. It protects the land, habitat, wildlife, and other resources while also providing recreational and other use opportunities. For instance, Alternative B would remove the current Wind River Special Resource Management Designation, an area exceeding 250,000 acres that provides hunting, wildlife viewing, boating, and motorized recreational access. Alternative D would reduce the size of this area to preserve greater habitat and reduce conflicts. But it would preserve over 80,000 acres for these recreational uses, including hunting and motorized access. Draft RMP, p. 2-135. This balanced position is most consistent with FLPMA and the general understanding that public lands should be for public use-not for strict preservation. As explained above, providing recreational use also protects the public interest and support for these BLM lands and, ultimately, for wildlife and habitat conservation as a whole. | The Draft EIS, including all four alternatives, are in compliance with FLPMA. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. Specific proposed management actions for recreation under each alternative can be found in Table 2-1 #6500-6557. |
| 839 - General-FLPMA / Multiple Use | #14024-3 | Second, Alternative D was developed based on public input.2 FLMPA's Congressional Declaration of Policy explicitly provides that the BLM establish its rules and regulations "after considering the views of the general public." 43 U.S.C. § 1701. Adopting the alternative with the greatest public input and support-Alternative D-is consistent with this policy directive and would recognize the importance of public lands access. On the other hand, the proposed selection of Alternative B has raised significant public concern, including among the Wyoming Governor and legislators.3 This proposal is inconsistent with the BLM's obligations. See, e.g., 43 U.S.C. §§ 1701(a)(2), 1712(c)(9). | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. BLM adequately consulted cooperating agencies in the development of all alternatives. See section 2.2.3 regarding Alternatives Development Process. See sections 5.1.1-5.1.2 regarding public involvement and government consultation and coordination in developing all alternatives. The agency preferred alternative is identified in the Executive Summary (pg. ES-3) and adequately meets the purpose and need outlined on ES-2 and in Sections 1.2.1 and 1.2.2. |
| 839 - General-FLPMA / Multiple Use | #14026-2 | BLM's preferred alternative, which maximizes conservation at the expense of other uses, could have devastating effects on electric reliability and affordability; public health and safety; and the well-being of communities throughout the west and may set detrimental precedent for BLM public land management across the nation. It is critical that BLM conducts its due diligence on the potential effects of this proposed alternative, including undertaking a thorough Regulatory Flexibility Act analysis, and by issuing a detailed Statement of Energy Effects.6 NRECA encourages BLM to work with stakeholders in the electricity sector and throughout communities in the | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. A full analysis of impacts to specific resources for each alternative is found in Section 4. |

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| | | region to understand the real-world impacts of each alternative, and to best balance those impacts and the goals of the preferred alternative under the existing mandate of Multiple Use and Sustained Yield under FLPMA.7 | |
| 839 - General-FLPMA / Multiple Use | #14026-9 | The Proposed Rule Exceeds BLM's Statutory Authority Congress enacted FLPMA in 1976 with the unambiguous, expressly stated purpose of managing our public lands "in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands."13 It mandated that BLM "shall manage the public lands under principles of multiple use and sustained yield" which means the "management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people."14 Importantly, Congress specified that "domestic livestock grazing, fish and wildlife development and utilization, mineral exploration and production, rights-of-way, outdoor recreation, and timber production" are principal or major uses of public lands under FLPMA.15 Facilitating these specific principal or major uses under the doctrine of Multiple Use and Sustained Yield is the primary reason for FLPMA and the BLM's existence. | The statutory authority of any proposed rules are outside the scope of this Draft EIS covering the Rock Springs Field Office resource area. Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. See Section 1.3 for a list of planning issues for the RMP. |
| 839 - General-FLPMA / Multiple Use | #14026-11 | Further, Congress included a provision in FLPMA that requires BLM to refer to Congress any management decisions which would "exclude one or more principal or major uses [. . . ] for two years or more on areas in excess of 100,000 acres" and reserves the right for either house of Congress to veto such decisions.18 Congress also unambiguously required BLM to seek congressional approval to withdraw parcels of over 5,000 acres from major or principal uses, and placed limitations on withdrawals of fewer acres.19 BLM's proposal to designate 1.65 million natural resource-rich acres as ACECs and to close off over 2.4 million acres to ROWs in Wyoming results in the effective withdrawal of millions acres of public land in from major or principal uses under FLPMA, including electricity generation, transmission, and distribution. Congress specifically made clear its intention to retain sole authority to remove large swaths of public lands from major or principal uses. Should BLM proceed with this ill-advised RMP/EIS process, NRECA urges it to abide by its statutory obligations and seek approval of Congress for this sweeping land withdrawal in Wyoming. | Please refer to the Glossary for a definition of 'withdrawal', which does not apply to fluid mineral leasing, solid mineral leasing, or mineral material sales (only General Land Laws such as the 1872 Mining Law). Please refer to the proposed management actions for all four alternatives that are described in Table 2.1. Expected impacts from each of the four alternatives can be found in Chapter 4. |
| 839 - General-FLPMA / Multiple Use | #14038-1 | ll current roads and trails need to remain open. These roads provide access for recreation, managing allotments, emergency response, hunting, mineral production, and many other uses. In an area of 3.7 million acres, there should be a substantial amount of roads that are permitted as well as maintained. Proposed ACEC's threaten routes and access for various user groups. These areas have a historical use and closing them is shutting the local communities off from their history. The environmental impact of the current transportation network is mitigated by the small number of current routes and open OHV areas. These roads, trails and recreation areas are crucial for the local economy for communities such as Lyman and Sweetwater County and other small communities that rely on access to the planning area. The U.S. Bureau of Economic Analysis showed that in 2021 the outdoor recreation industry brought in $821 billion nationwide. By limiting access to this area the BLM could be harming the local economy and robbing them of potential income. Giving preferential treatment to one user groups over another is against the BLM's multiple use mandate and permit. | Sections 1.4- 1.5 of the DEIS cover the planning criteria and requirements of BLM land use plans and amendments, including adherence to FLPMA. Socioeconomic impacts under each alternative are analyzed in Section 4.22 and a socioeconomic report can be found in Appendix N. Impacts to recreation under each alternative are analyzed in Section 4.17. Specific route designations are implementation level actions and are outside the scope of this document. |
| 182.01 - Cultural, Hist., Anthro. Mgmt | #11-1 | I encourage you to involve tribal members closely in all stages of research, protection, policy development, and management | See Chapter 5 for consultation information. |