December 2024

Record of Decision and Approved Resource Management Plan



BLM MISSION

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Rock Springs Field Office

Record of Decision and Approved Resource Management Plan

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ACRONYMS AND ABBREVIATIONS

Term	Definition
ACEC	Area of Critical Environmental Concern
AML	Appropriate Management Level
AO	Authorized Officer
APHIS-WS	Animal and Plant Health Inspection Service—Wildlife Services
ARPA	Archaeological Resources Protection Act
AUM	animal unit month
BA	Biological Assessment
BLM	Bureau of Land Management
BMP	best management practice
BO	Biological Opinion
САР	Coordinated Activity Plan
CAS	Conservation Agreements and Strategies
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CSU	Controlled Surface Use
DOI	U.S. Department of the Interior
EIS	environmental impact statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act of 1973
FLPMA	Federal Land Policy and Management Act
GIS	geographic information system
НА	herd area
НМА	herd management area
HMP	habitat management plan
JMH	Jack Morrow Hills
KSLA	Known Sodium Leasing Area
LWC	Lands with Wilderness Characteristics
MMTA	Mechanically Mineable Trona Area
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act of 1969
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NHT	National Historic Trail
NRCS	Natural Resources Conservation Service

Term	Definition
NRHP	National Register of Historic Places
NSO	no surface occupancy
OHV	off-highway vehicle
ORV	off-road vehicle
PFC	Proper Functioning Condition
РНМА	Priority Habitat Management Area
R&I	relevance and importance
RD&D	Research Development and Demonstration
RFO	Rawlins Field Office
RMP	resource management plan
ROD	record of decision
ROW	right-of-way
RSFO	Rock Springs Field Office
SHPO	State Historic Preservation Office
SRMA	Special Recreation Management Area
ТСР	Traditional Cultural Property
TLS	timing limitation stipulation
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management
WAAQS	Wyoming Ambient Air Quality Standard
WDEQ	Wyoming Department of Environmental Quality
WGFD	Wyoming Game and Fish Department
WHM ROD	Wild Horse Management for the BLM Rock Springs and Rawlins Field Offices, Record of Decision
WSA	Wilderness Study Area
WSR	wild and scenic river

1 RECORD OF DECISION

1.1 Introduction

1.1.1 Overview

The Federal Land Policy and Management Act (FLPMA) (43 U.S. Code [U.S.C.] 1701 et seq.) directs the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM) to develop and periodically revise or amend its resource management plans (RMP). RMPs are the plans that guide the management of BLM-administered lands. This record of decision (ROD) approves the attached RMP to manage public lands administered by the BLM Rock Springs Field Office (RSFO) within portions of Lincoln, Sweetwater, Uinta, Sublette, and Fremont Counties in southwestern Wyoming (Figure 1-1).

1.2 Decision

The decision is hereby made to approve the attached RMP as the land use plan for the RSFO planning area. The BLM prepared the Approved RMP under the regulations implementing FLPMA (43 Code of Federal Regulations [CFR] 1600). The RMP includes broad land use plan decisions that provide the overall direction for managing resources and resource uses in the Decision Area (BLM-administered surface lands and Federal mineral estate). The BLM prepared an environmental impact statement (EIS) for this RMP in compliance with the National Environmental Policy Act of 1969 (NEPA). Land use plan decisions identified in the Approved RMP are final and become effective when this ROD is signed. The decisions in this ROD and the Approved RMP will replace the 1997 Green River RMP and will guide the management of public lands administered by the RSFO into the future. Wild horse management within four herd management areas (HMA) that contain what is commonly referred to as "checkerboard" land (a land ownership pattern of alternating sections of federally owned lands with private or State-owned lands) was recently set through a ROD and approved RMP Amendment that was signed on May 8, 2023 (BLM 2023). Those goals, objectives, and management actions were carried forward in their entirety in this RMP revision process and appear in the Approved RMP.

1.3 The Alternatives

1.3.1 Introduction

An RMP provides broad guidance for managing public lands. FLPMA directs the BLM to develop RMPs as the primary means to identify and allow for appropriate uses of BLM-administered land. RMP decisions establish goals and objectives (desired outcomes) for resource management that guide future implementation decisions. The RMP also identifies measures necessary for achieving outcomes, expressed as allowable uses (lands that are open or closed to certain uses) and management actions (proactive management techniques).

NEPA and BLM land use planning regulations (43 CFR 1610.4-5) require the BLM to develop a reasonable range of alternatives during the RMP planning process, including a no action alternative, to analyze impacts and guide decision makers in developing and selecting the Approved RMP. The BLM developed five alternatives including the no action alternative and analyzed them in detail in the Proposed RMP/Final EIS.



Figure 1-1 Rock Springs RMP Planning Area

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM

1.3.2 Alternatives Analyzed in Detail

1.3.2.1 Alternative A: No Action Alternative

Resources on lands administered by the BLM within the planning area are currently managed under the Green River RMP (1997a) and the Jack Morrow Hills (JMH) Coordinated Activity Plan (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.

1.3.2.2 Alternative B: Conservation Alternative

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.

1.3.2.3 Alternative C: Resource Use Alternative

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.

1.3.2.4 Alternative D: Balanced Alternative

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.

1.3.2.5 Approved RMP

The Approved RMP was developed through a combination of Alternative B (conservation alternative) and Alternative D (balanced alternative) management actions, although some elements of Alternatives A and C were included, as well. This approach follows public and cooperators' comments requesting a mix of alternatives addressing land designations, exclusion areas, and potential restrictions on development. The Approved RMP allows for responsible development of resources while emphasizing protections for wildlife habitat and improved water quality.

1.3.3 Clarification and Modifications Since the Approved RMP

As a result of ongoing internal review and cooperating agency consultation, the BLM clarified or modified language between the Proposed RMP/Final EIS and the Approved RMP, where appropriate. Minor grammatical and editorial corrections are not identified, but other changes since the Proposed RMP/Final EIS are below. All changes are within the range of alternatives considered in the EIS.

• Goals, objectives, and management actions from the *Wild Horse Management for the BLM Rock* Springs and Rawlins Field Offices, Record of Decision and Approved Resource Management Plan Amendment (BLM 2023) were added to the Approved RMP (Table 2-2) to ensure all currently approved decisions for wild horses management appeared in one place.

1.4 Management Considerations and Decision Rationale

The Approved RMP provides the best combination of management decisions to meet the purpose and need for a land use plan in consideration of the planning issues and management concerns identified through the planning process. The Approved RMP is consistent with law and reflects national policy considerations. The decision is also based on review and substantive comments from Federal, Tribal, State, and local governments and agencies; the public; industry; and the cooperating agencies that participated in the planning process.

The Approved RMP fulfills the purpose by providing goals and objectives for public land management and by resolving multiple-use conflicts or issues associated with those requirements that drive the preparation of the RMP. Section 103 (c) of FLPMA defines "multiple use" as "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..." The combination of planning decisions is driven by the diverse resources and values on public lands and how to best realize the broad spectrum of available opportunities. This combination of decisions also recognizes the sustainability of the ecosystem and is within the constraints of applicable laws and regulations. The Approved RMP fulfills the need by addressing current resource conditions; changes in circumstances, such as evolving demands on resources; and new or revised national-level policies (43 CFR 1610.5-6) since preparation of the Green River RMP (BLM 1997a) and JMH CAP (BLM 2006), and their subsequent amendments.

The Approved RMP provides a comprehensive framework for addressing the diverse management needs of BLM-administered lands in the Decision Area and was developed after addressing major concerns from the public, the Governor of Wyoming's Task Force, BLM staff, local cooperators, and Tribes. The main concerns included designations of Areas of Critical Environmental Concern (ACEC), Special Recreation Management Areas (SRMA), right-of-way (ROW) exclusion areas, and potential restrictions on development. Additionally, the BLM received numerous comments related to the Red Desert and Little Mountain areas, which both contain prized resources for the community. The Approved RMP was developed to allow for responsible development of resources while emphasizing protections for wildlife habitat and improved water quality.

The BLM interdisciplinary team reviewed public proposals to recognize and manage various areas as with Special Designations, including five SRMAs for a total of 138,605 acres and a 5-mile-wide corridor for designated National Historic and Scenic Trails that was the main concern for ROW exclusion areas. In addition, the RSFO has nine areas that inventory as Lands with Wilderness Characteristics (LWC). Under the Approved RMP, five LWCs are within ACECs in the Red Desert area and would be managed as part of the ACEC, two LWCs are within the Little Mountain ACEC and would be managed as part of that ACEC, and two LWCs are within the Salt Wells area and would be managed for multiple use consistent with that area. LWCs under the Approved RMP would not be specifically managed to maintain their wilderness character and would instead follow other overlapping management direction including more emphasis on multiple uses.

The Approved RMP resolved concerns on closures and stipulations for future proposed development, most notably on trona, grazing, renewable energy, and oil and gas development. Closures are designed to provide resource-specific protections and to support the effectiveness, long-term viability, and durability of management goals. Stipulations are designed to provide resource-specific protections. These resolutions

were proposed to align with similar restrictions in adjacent planning area field offices and to provide clarity and resolve potential conflicts from the Draft RMP/EIS. The BLM may modify the operations of surface and other disturbance activities caused by the presence of humans and require additional specific or specialized mitigation. These stipulations, as well as other restrictions and management actions such as ROW exclusion, are designed to sustain resource conditions.

1.4.1 ACEC Designation Rationale

The BLM interdisciplinary team reviewed BLM-administered lands in the planning area to determine whether new areas should be considered for designation as ACECs and whether existing ACECs should continue to be managed as ACECs to protect the identified values. Under the Approved RMP, a total of 12 ACECs totaling 935,135 acres are approved. All ACECs in the Red Desert area are approved except for the proposed Big Game Migration Corridor ACEC. In addition, the Approved RMP remains consistent with the Little Mountain Coalition's and the public's request that the ACEC does not get expanded.

1.4.1.1 Designated ACECs

As discussed in Appendix C of the RSFO Proposed RMP/Final EIS, the BLM planning team reviewed all BLM-administered public lands in the planning area to determine if any areas should be considered for designation as ACECs or if any existing ACEC designations should be modified or terminated. To be eligible for designation as an ACEC, an area must meet the relevance and importance (R&I) criteria described in 43 CFR 1610.7-2 and BLM Manual 1613. If the R&I criteria are met, an area must be identified as a potential ACEC and considered for designation and management in the resource management planning process. Actual designation in the final RMP is based on whether a potential ACEC requires special management attention in the selected plan alternative. The following are the proposed ACECs that met R&I values, were evaluated in at least one alternative during the planning effort, and were designated or retained as ACECs. These areas require special management attention to protect the identified R&I values.

1.4.1.1.1 Little Mountain ACEC

The Little Mountain area includes the Red Creek, Currant Creek, and Sage Creek portions of the proposed Greater Red Creek ACEC. The Red Creek Portion met R&I criteria for significant historic, cultural, paleontological, wildlife, and scenic values. The Currant Creek Portion met R&I criteria for significant historic, cultural, paleontological, scenic and wildlife values. The Sage Creek Portion met R&I criteria for significant historic, cultural, paleontological, soils, and wildlife values. These areas were therefore considered in the range of alternatives as the proposed combined Little Mountain ACEC. The identified threats in all portions of the Little Mountain area include wildfire and landslides.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management of forestry, fire, recreation, and livestock grazing activities would be evaluated, and management actions would be modified to improve watershed stability and support sensitive fish and wildlife species in the area (management actions 7419, 7420, 7423, 7425, 7427, 7428, 7443). These actions would reduce the risk of erosion and would retain or improve soil stability in the area, decreasing the risk of landslides and impacts on life, property, and historic or cultural resources (management action 7416). Management for mineral resources would include restrictions like closing the area to fluid mineral leasing, oil shale leasing, and coal leasing, which would prevent fragmentation or effects on the scenic, historic, and other resources in the area (management Areas (PHMA), BLM sensitive plant and animal species, and cultural and historic sites, additional special management protection as an ACEC is necessary to protect the fragile, sensitive, and unique nature of the area.

1.4.1.1.2 Greater Sand Dunes ACEC

The Greater Sand Dunes area is made up of four distinct portions. The East Portion met R&I criteria for significant historic, cultural, geological, and wildlife values; the Western Portion met R&I criteria for significant historic, cultural, geological, and scenic values; the Boar's Tusk Portion met R&I criteria for significant historic, cultural, scenic, wildlife, and natural values; and the Crookston Homestead Portion met R&I criteria for significant historic and cultural values. All four portions were therefore considered in the range of alternatives as the proposed combined Greater Sand Dunes ACEC. Identified threats include rock climbing on the delicate and friable Boar's Tusk geologic feature, which is listed as a desirable climbing location in numerous publications despite it being closed to activities such as climbing that would damage the feature. Potential use conflicts also exist between the co-located dunes (a nationally known off-highway vehicle [OHV] riding location) and a working natural gas field. Portions of the dunes contain a sensitive vegetated upper layer, which is fragile and susceptible to erosion when disturbed. In addition, the historic buildings in the Crookston Homestead Portion are susceptible to natural and human-caused seismic activity, such as from recreational use of the dunes. Shifting sand encroaches on the buildings and destabilizes the structures and affects the nearby riparian area associated with a year-round spring.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management within the ACEC emphasizes limiting surface-disturbing activities or actions, such as designation of ROW exclusion or avoidance areas for ROW (management actions 7420, 7426, 7438), which would protect the dunes from overuse or resource conflicts and would preserve the visual horizon. Similarly, the area restricts or limits mineral and coal sales, leasing, and development, although subsurface mining methods would remain open for limited leasing options, which would help achieve management objectives of protecting and improving the dunal ponds for wildlife and retaining the scenic character of the area (management actions 7419, 7420, 7422, 7423, 7426). Management of geophysical activities such as oil and gas exploration and development activities would be restricted seasonally, which would reduce effects on crucial big game winter ranges, big game birthing areas, and portions of pristine habitat (management actions 7431, 7433). Management of OHV use around Boar's Tusk would be consistent with the transportation plan, with some areas open to OHV travel, and some limited to existing roads and trails, preventing degradation of sensitive areas of the dune and minimizing erosion and seismic activity while maximizing recreation use (management actions 7428, 7430, 7436, 747640). Some portions of the Greater Sand Dunes area would consider additional visitor controls, such as retaining Boar's Tusk as closed to rock climbing and adding fencing or interpretive signs, which would protect sensitive features from degradation and erosion (management action 7427). Although there are other protections in the area separate from the ACEC designation such as the sage-grouse PHMA, the Sand Dunes Open Play Area SRMA, the Sublette Mule Deer Migration area, and Wilderness Study Areas (WSA), the number of sensitive, fragile, and unique resources that occur in the Greater Sand Dunes area requires additional protections under an ACEC designation.

1.4.1.1.3 Natural Corrals ACEC

The Natural Corrals area met R&I criteria for significant historic, cultural, wildlife, and scenic values, and it was therefore considered in the range of alternatives as the proposed Natural Corrals ACEC. The identified threats to the values include development and fragmentation, which could affect wildlife habitat and infiltration of the aquifer recharge area that supplies water to the Town of Superior. Additionally, warming winter temperatures could affect the integrity of the ice caves.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management of mineral resources would include closing the ACEC to fluid mineral exploration and development and surface-disturbing activities, which would maintain contiguous habitat for forage, cover, migration, and important life cycles of wildlife (management actions 7440, 7441). The

area would also be designated as an exclusion area for ROWs and surface solid leasable mineral activity (management actions 7441, 7442), which would further protect native wildlife habitat, retain the infiltration into the aquifer recharge area, and support the natural character of the landscape (management actions 1309, 1310, 7445). Management actions involving interpretive programs, signage, markers, and other elements for historic trails, other historic sites, and important prehistoric sites would enhance recreational experiences, increase public awareness and stewardship, and reduce impacts on natural resources (management actions 5004, 7444). Although there are protections for cultural sites under the National Register of Historic Places (NRHP), for sage-grouse PHMA, and the Sublette Mule Deer Migration area already in place, additional special management protection as an ACEC is necessary to protect the fragile, sensitive, and unique nature of the area.

1.4.1.1.4 Oregon Buttes ACEC

The Oregon Buttes area met R&I criteria for significant historic, cultural, wildlife, and scenic values, and it was therefore considered in the range of alternatives as the proposed Oregon Buttes ACEC. The identified threats include any surface development that would substantially alter the visual resources or harm the fragile soils in the area. The geologic high cliffs are a nationally recognized landmark as a historic navigation feature; as such, any impact on the visual or geologic makeup of the butte would affect the historic and cultural importance of the area.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management of mineral resources would include restrictions such as designation as an exclusion area for ROWs; closure to mineral material sales, mineral exploration, and development activities; and prohibition of OHV use for any purpose. These restrictions would preserve the integrity of the scenic quality of the landscape in the context of the historic and cultural values, as well as reduce effects on sage-grouse, known raptor nesting sites, and big game habitat (management actions 4414, 7449). The ACEC would be open to consideration of such activities as fencing, interpretive signs, or construction of barriers, which would preserve the integrity of the historic and cultural heritage of the National Historic Trail (NHT) and Continental Divide National Scenic Trail (management action 7450). Although there are other protections in the area separate from the ACEC designation such as the NHTs, sage-grouse PHMA, Sublette Mule Deer Migration area, and WSAs, the number of sensitive, fragile, and unique resources that occur in the Oregon Buttes area requires additional protections under an ACEC designation.

1.4.1.1.5 Pine Springs ACEC

The Pine Springs area met R&I criteria for significant historic, cultural, and paleontological values, and it was therefore considered in the range of alternatives as the proposed Pine Springs ACEC. The identified threats to the values include any surface-disturbing activity that would affect the unstable soils in the area. Due to the fragile nature of the Devils Playground and Twin Buttes features and the highly erodible nature and salt content of the soils, the area is highly susceptible to adverse change that would permanently alter the resource values.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. The Pine Springs site contains intact provenience of 9,000 years of human habitation, is a recognized Traditional Cultural Property (TCP) and Sacred Landscape, and is of national scientific importance. Management actions within this ACEC are designed to place priority consideration on the natural and cultural values over conflicting land uses. These management actions would prohibit surface-disturbing activities and close the area to mineral material sales, implement a no surface occupancy (NSO) restriction for fluid minerals, and designate the area as ROW avoidance, which would protect the fragile soils and retain the integrity of the historic sites (management actions 5109, 5111, 7454, 7455). For the same reasons, and to meet the objectives of the designated Visual Resource Management (VRM) Class II

area, the area would be closed to geophysical operations including the use of blasting and explosives, and a withdrawal from mineral location and entry would be pursued (management actions 7492, 5110, 7457). The area also includes old-growth juniper, which is a unique plant community, and any development would incorporate activity plans that would retain these old-growth stands (management action 4012). Any activity proposed within 3 miles of the TCP would require additional State Historic Preservation Office (SHPO) and Tribal consultation and the creation of a cultural resources management plan, with allowances for interpretive and visitor management efforts as necessary (management actions 5200, 7456). While several portions of the area are protected under other laws and regulations and several of the cultural sites are eligible for listing on the NRHP, protection of these rare, fragile, and unique resources requires the special management of ACEC designation.

1.4.1.1.6 Pinnacles ACEC

The Pinnacles area met R&I criteria for significant wildlife, geologic, and scenic values, and it was therefore considered in the range of alternatives as the proposed Pinnacles ACEC. The identified threats to the values include human or natural impacts on the geologic or visible makeup of the base rock, which is fragile, friable, unique, and irreplaceable.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management of mineral resources within the ACEC would include closures to mineral material sales and disposal, an exclusion area for ROWs, the pursuit of a withdrawal for mineral location, and limitations to surface-disturbing activities, which would contribute to the preservation of the visual resources (management actions 5400, 7319). Seasonal restrictions for nesting raptors (management action 4416) and big game crucial winter range (management action 4414) would further protect the significant wildlife resources in the area, although these are still not sufficient to protect the fragile, unique, and irreplaceable resources; therefore, the Pinnacles area requires additional protection under an ACEC designation.

1.4.1.1.7 South Pass Historic Landscape ACEC

The South Pass Historic Landscape area met R&I criteria for significant cultural, scenic, wildlife, and sensitive species values, and it was therefore considered in the range of alternatives as the proposed South Pass Historic Landscape ACEC. The identified threats to the values include surface-disturbing and development activities that would alter the view or visitor experience, or affect the retention of groundwater in the known aquifer area, as well any human-caused disturbances that would affect the designated Sublette Mule Deer Migration corridor. The ACEC includes South Pass, which was the only location where the mountains could be crossed during westward emigration and, as such, contains the crossing of four nationally significant NHTs.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. The National Scenic and Historic Trails and the South Pass National Historic Landmark warrant extra protection to preserve their scenic and historic value and context. Management of surface-disturbing activities in the area is in place to primarily protect the integrity of these nationally important sites (management actions 7458, 7459), including areas of high significance to Native American Tribes. Some of these restrictions include allowable surface occupancy only if there is a weak contrast to the trail setting; however, the ACEC has restrictions for mineral resources including a controlled surface use restriction for fluid minerals, closing the area to oil shale, implementing a ROW exclusion area, and proposing withdrawal for mineral location (management action 7460). Although there are other protections in the area separate from the ACEC designation such as the sage-grouse PHMA, Sublette Mule Deer Migration area, NHTs, BLM sensitive plant species, and several cultural sites listed on the NRHP and one

as a National Historic Landmark, the number of sensitive, fragile, and unique resources that occur in the South Pass Historic Landscape area requires additional protections under an ACEC designation.

1.4.1.1.8 Special Status Plant Species ACEC

The Special Status Plant Species area met R&I criteria for special status species and was therefore considered in the range of alternatives as the proposed Special Status Plant Species ACEC. The identified threats to the values include fragmentation or destruction of the habitat necessary to support special status plant species.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. In this case, ACEC designation is a major factor to prevent listing of these species as threatened or endangered under the Endangered Species Act of 1973 (ESA), and protections from other management actions do not adequately protect the sensitive, fragile, and unique resources of the ACEC that specific management actions under the ACEC (management actions 7462, 7463) would address. Management for mineral resources would include restrictions such as closure to mineral material sales, solid mineral leasing, and an NSO restriction for fluid minerals. The ACEC would also be designated as a ROW exclusion area and would pursue a withdrawal from mineral location, which would prevent impacts on the habitats necessary to support the special status plant species (management action 7464). Additionally, management actions 7465 and 4600–4610 provide direction for inventorying areas where species could be located, for adding or removing populations as appropriate, and for coordinating efforts to minimize impacts on special status plant species and their habitats, which would reduce the possibility of listing these species under the ESA. The designation as an ACEC and the associated protections were identified in recent ESA listing decisions as factors preventing the need for listing; therefore, these resources require the special management protection of an ACEC.

1.4.1.1.9 Steamboat Mountain ACEC

The Steamboat Mountain area met R&I criteria for significant historic, cultural, wildlife, special status species, and scenic values, and it was therefore considered in the range of alternatives as the proposed Steamboat Mountain ACEC. The identified threats to the values include fragmentation from development of important wildlife and vegetation habitats, including the designated Sublette Mule Deer Migration corridor and sage-grouse PHMA. The area also contains the only seasonal closure in the planning area that provides protection for big game during the birthing season.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. All management actions of this ACEC are designed to place priority consideration on R&I values over conflicting land uses, such as designation as a ROW exclusion area, prohibition of communication sites and overhead power lines, seasonal closure for vehicular travel, closure to fluid mineral leasing and development, and pursual of a withdrawal from mineral location and entry (management actions 7468, 7469, 7470, 7472, 7473, 7474, 7479). Some surface-disturbing activities would be permitted subject to mitigation to minimize impacts on big game habitat (management action 4410). Additional management actions for the ACEC are in place to protect the higher-than-normal density of cultural sites and unique plant communities (management actions 4610, 5101, 7469, 7471, 7475, 7476, 7477). Additionally, management action 5201 provides for increased opportunities for Tribal consultation within 3 miles of TCPs or areas identified as respected places. Although there are other protections in the area separate from the ACEC designation such as the sage-grouse PHMA, Sublette Mule Deer Migration area, and Tri-Territory marker, the number of sensitive, fragile, and unique resources that occur in the Steamboat Mountain area requires additional protections under an ACEC designation.

1.4.1.1.10 White Mountain Petroglyphs ACEC

The White Mountain Petroglyphs area met R&I criteria for significant cultural, wildlife, and recreation values, and it was therefore considered in the range of alternatives as the proposed White Mountain Petroglyphs ACEC. The identified threats to the rock art panels and an adjacent shallow, sandstone cave include vandalism and erosion.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. While the site is a developed recreation area and has some visitor controls in place that discourage vandalism and improve visitor experience, management includes additional activities that would protect the integrity of the nearby site and up to a 3-mile radius, while meeting VRM Class II objectives that protect the scenic values (management action 7483). These additional protections discourage human-related impacts on the rock art panels and fragile sandstone and could include interpretive signs, construction or placement of barriers, and increased fencing (management actions 7481, 7485). Some surface-disturbing activities and geophysical activity might be acceptable within 1 to 3 miles of the rock art if it is determined not to affect the visual or audible integrity of the site. The ACEC is closed or limited to vehicle traffic, which maximizes protection of the site from both direct impacts from vehicles and indirect impacts such as noise (management actions 7484, 7486, 7487). Management for mineral resources would prohibit surface occupancy and includes restrictions such as NSO for fluid minerals, closure to mineral material sales and disposal, maintenance of existing withdrawals, and designation as a ROW exclusion area (management actions 5100, 7482). Additional protections are provided under management actions that protect rock art sites from aerial fire suppression agents (management action 3008). Although there are protections for sage-grouse PHMA and a TCP, additional special management protection as an ACEC is necessary to protect the rare, irreplaceable, and vulnerable resources within the area.

1.4.1.1.11 South Wind River ACEC

The South Wind River area met R&I criteria for significant historic, wildlife, and scenic values in the Wind River Front East Portion, and significant historic, wildlife, and recreation values in the Wind River Front West Portion, and it was therefore considered in the range of alternatives as the proposed combined South Wind River ACEC. The identified threats in the East Portion include high recreation use and surface-disturbing activities that would adversely affect historic and cultural resources and the high-value scenic areas of the Continental Divide National Scenic Trail and NHT that are extremely vulnerable to adverse change. Identified threats in the West Portion include recreation-related impacts on sensitive and important fish and wildlife habitat. Surface-disturbing activities would also affect the sensitive slopes of the Wind River range, which provide important water recharge, and a prehistoric steatite quarry used by Native American Tribes.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management for mineral resources in the ACEC include closure of the area to material sales and leasing, additional withdrawals if appropriate, and not offering existing leases upon expiration. These restrictions would provide protection for resources that are especially vulnerable to adverse impacts including the aquifer recharge areas, the cultural and scenic settings around the national trails, crucial fish and wildlife habitat, big game migration corridors, and Native American significant sites (management actions 1309, 5008, 6530, 7492). The area around the prehistoric steatite quarry would only allow those activities that relate to scientific investigations or traditional cultural practices, thus further protecting the integrity of this rare, unique, and vulnerable resource (management action 5005). Motorized and non-motorized vehicles would be restricted to designated roads and trails and encouraged to engage in lower-impact recreation activities, which would also provide increased protection to sensitive plant species and sensitive wildlife habitats from surface disturbance (management actions 4601, 6526, 7494, 7495). Management of the NHT corridor that runs through the ACEC restricts surface-disturbing activities within

0.25 mile of either side of the trail, with the intended effect of retaining the scenic, recreation, and cultural values of the trail (management actions 7002–7010, 7012). Although there are other protections in the area separate from the ACEC designation such as the NHT, wild and scenic river, Continental Divide National Scenic Trail, sage-grouse PHMA, Sublette Mule Deer Migration area, and BLM sensitive plant species, the number of sensitive, fragile, and unique resources that occur in the South Wind River area requires additional protections under an ACEC designation.

1.4.1.1.12 Big Sandy Openings ACEC

The Big Sandy Openings area met R&I criteria for significant wildlife and scenic values, and it was therefore considered in the range of alternatives as the proposed Big Sandy Openings ACEC. The identified threats to these values include large areas of beetle-killed pine trees that are a significant hazard for fire, development in the area that could affect the high-value scenery including a pristine river and associated canyon, as well as crucial winter range and parturition habitat for big game, sage-grouse habitat, and the designated Sublette Mule Deer Migration corridor.

Special management applied through designation as an ACEC was determined to be required to protect the identified R&I values. Management of mineral resources within the ACEC is designed to limit surfacedisturbing activities and includes designating the area as an exclusion area for ROWs, mineral material sales, and mineral location, which would retain the pristine scenic value and limit impacts on wildlife (management action 7499). Any future development in the area will be designed to minimize surface disturbance and to achieve VRM Class II objectives (management actions 7497, 7498), which will protect the scenic values of the area. Motorized and non-motorized vehicles are limited to designated roads and trails and further restricted seasonally, thus protecting the area from possible human-caused wildfires, which will reduce effects on big game when the migration corridor is in use or during vulnerable times of year (management action 7500). Additional management of forest and woodlands would include seasonal restrictions on harvesting, which would also reduce effects on big game. A site-specific analysis and Fire Management Plan will be prepared for the ACEC and will determine the type of fire suppression activities that will meet the objectives of the ACEC (management actions 3006, 3011, 4003, 4007), adding to the reduced effects on scenic values and wildlife. Although there are other protections in the area separate from the ACEC designation such as the sage-grouse PHMA and Sublette Mule Deer Migration area, the number of sensitive, fragile, and unique resources that occur in the Big Sandy Openings area requires additional protections under an ACEC designation.

1.4.1.2 Proposed ACECs that Were not Designated

As noted in Appendix C of the RSFO Proposed RMP/Final EIS, the BLM planning team reviewed all BLMadministered public lands in the planning area to determine if any areas should be considered for designation as ACECs or if any existing ACEC designations should be modified or terminated. To be eligible for designation as an ACEC, an area must meet the R&I criteria described in 43 CFR 1610.7-2 and BLM Manual 1613. If the R&I criteria are met, an area must be identified as a potential ACEC and considered for designation and management in the resource planning process. Actual designation in the Approved RMP is based on whether a potential ACEC requires special management attention above laws, regulations, and protections already in place in the selected plan alternative. The following are the proposed ACECs that met R&I values and were therefore evaluated but did not require special management attention to protect those R&I values.

1.4.1.2.1 Cedar Canyon

The Cedar Canyon area met R&I criteria for significant historic, cultural, and wildlife values, and it was therefore considered in the range of alternatives as the proposed Cedar Canyon ACEC. The identified

threats to the values include vandalism of culturally significant and fragile sandstone rock art panels and the potential for increased human use of the area around these sensitive sites and habitat. The area is a known raptor nesting area and is within big game crucial winter range habitat.

The BLM did not designate the Cedar Canyon area as an ACEC because the management actions in the Approved RMP would provide protection for the R&I values and therefore special management is not required. Management of mineral resources in the Cedar Canyon area includes restrictions like NSO for fluid minerals, closure to mineral material sales, and maintenance of existing and pursuit of new withdrawals from mineral location that will limit impacts on culturally significant sites (management action 5100). Surface-disturbing activities may be approved with adherence to buffers and BLM mitigation policies that will not affect rock art, raptor nesting, or crucial winter ranges for big game (management actions 4410, 4415). These restrictions allow for sufficient protection of the R&I values in the Cedar Canyon area including damage to or degradation of historic and cultural values and impacts on wildlife; therefore, the R&I values do not require special management attention through ACEC designation.

1.4.1.2.2 Greater Red Creek

The proposed Greater Red Creek ACEC was renamed the Little Mountain ACEC. Please see Section 1.4.1.1.1 for a discussion on the R&I criteria for this area.

1.4.1.2.3 Monument Valley

The Monument Valley area met R&I criteria for significant cultural, paleontological, wildlife, and scenic values, and it was therefore considered in the range of alternatives as the proposed Monument Valley ACEC. The identified threats to the values include surface-disturbing activities, habitat fragmentation, increased human presence, and wildfires that would disrupt crucial winter range habitat for big game, as well as human or natural impacts on the geologic features and the highly erodible clay soils in the area, which make up the unique scenic values and house paleontological resources of the area. Fossils of scientific interest have been and continue to be studied in the areas inside and outside the Adobe Town WSA, which is included in the proposed ACEC. In addition, the area has some of the most photographed geologic features in the RSFO, including steep, colorful cliffs and deep ravines. Photographers come from all areas of the country to photograph the features.

The BLM did not designate the Monument Valley area as an ACEC because the management actions in the Approved RMP would provide protection for the R&I values and therefore special management is not required. Management for fluid and solid leasable minerals (management actions 1106, 2403) would include restrictions in areas with limited reclamation potential and be evaluated on a case-by-case basis, which would protect the high scenic quality in the area (management action 5400) and the highly erodible clay soils in the area. Restrictions on vehicular access in the area (management action 4414) would protect crucial winter range habitat for big game at times of seasonal vulnerability. Management of all significant cultural and paleontological resources with significant scientific and educational values is already conducted in accordance with national laws and regulations (see management action 5302, 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365). The southern portion of the proposed ACEC is within the Adobe Town WSA, which provides sufficient protection for the resources in this area. Areas north of the WSA in the proposed ACEC are checkerboard, and management as an ACEC would be difficult. For these reasons, the R&I values in the area are adequately protected and do not require special management attention through ACEC designation.

1.4.1.2.4 East Sand Dunes – Red Lake

The East Sand Dunes – Red Lake area met R&I criteria for significant wildlife and scientific study values, and it was therefore considered in the range of alternatives as the proposed East Sand Dunes – Red Lake ACEC. The primary threat to these values is motor vehicle trespassing that could negatively affect or eliminate resource values. Resource values with intact provenience within the dunes would potentially be destroyed by motor vehicle trespassing. The remnant dunal ponds are unique ecosystems useful for scientific study.

The BLM did not designate the East Sand Dunes – Red Lake area as an ACEC because the management actions in the Approved RMP would provide protection for the R&I values and therefore special management is not required. Management of recreational resources (management actions 6505, 6606, 6607, 6608, 7101) would include restrictions, closures, or designated easements for OHV routes and camping, which would limit adverse impacts on the dunes and retain their integrity for future scientific study. As the area also contains big game crucial winter range habitat, management actions (management actions 4410, 4412) for surface-disturbing activities within the Approved RMP would prevent impacts on this habitat during seasonal big game use. Due to implementation of the management actions in the Approved RMP and protections in place from the East Sand Dunes and Red Lakes WSAs, which duplicate the boundary of the proposed ACEC, the R&I values in the area are adequately protected and do not require special management attention through ACEC designation.

1.4.1.2.5 Big Game Migration Corridor

The Big Game Migration Corridor area met R&I criteria for wildlife resources, scenic, cultural, and rare plant communities, and it was therefore considered in the range of alternatives as the proposed Big Game Migration Corridor ACEC. The identified threats to these values include development, habitat fragmentation, and increased human activity resulting in a loss of scenic and historical value and a negative impact on the longest known mule deer migration corridor in the U.S.

The BLM did not designate the Big Game Migration Corridor area as an ACEC because the management actions in the Approved RMP would provide protection for the R&I values and therefore special management is not required. Management actions 4007, 4410, and 4414 apply seasonal restrictions to activities such as timber harvesting, livestock grazing, and vehicular travel in big game wintering habitat and parturition areas that will minimize impacts on wildlife resources at a crucial time. Management for mineral resources (management actions 2218, 5400, 7015) within the big game habitat area will only be approved with an accepted conservation plan, ensuring all activities are pursued in a manner that maintains wildlife habitat function and does not result in significant declines in species distribution or abundance or negatively affect the cultural resources in the area like the South Pass National Historic Landscape, the South Pass National Historic Landmarks, several sections of the Emigrant Trail, and the Natural Corrals Cultural Site. Other actions, such as management actions 4404, 4410, and 4412, allow developments such as water projects or coal leasing and development on a case-by-case basis subject to adequate mitigation of impacts and adherence to BLM mitigation policies and will reduce impacts on all R&I values. Similar to management actions that protect crucial big game winter corridors, management actions 3011 and 4610 limit surface-disturbing activities in areas where fragile, rare, and vulnerable plant communities exist. Scenic resources in this area are protected by management actions (management actions 7449, 7451) that would limit surface disturbance and new visual contrast, protecting the high scenic value in the area, which includes portions of the Oregon Buttes, White Horse Creek, and Honeycomb Buttes WSAs. With the management actions in the Approved RMP and the variety of protections are already in place for this area including sage-grouse PHMA, raptor nesting, NHTs and other cultural sites, the Superior aquifer recharge area, other ACECs, and WSAs, the R&I values in this area are adequately protected and do not require special management attention through ACEC designation.

1.5 Application of the Resource Management Plan to Existing Projects

Numerous rights and privileges have been established on BLM-administered lands under law, regulation, or planning decisions. The decisions included in this ROD and Approved RMP supersede the Green River RMP (BLM 1997a) and JMH CAP (BLM 2006). Wild horse management for four HMAs that contain portions of the mixed private/public checkerboard land pattern was recently set through a ROD and approved RMP Amendment that was signed on May 8, 2023 (BLM 2023). Those goals, objectives, and management actions are carried forward in their entirety in this RMP revision process and are not amended by this Approved RMP and ROD. All management direction and actions developed as part of the BLM planning process are subject to valid existing rights. Valid existing rights include all valid leases, permits, ROWs, or other land use rights or authorizations in effect on the date of approval of this RMP.

Any new activity-level or project-specific authorization or management action must conform with the Approved RMP (i.e., be specifically provided for in the RMP or consistent with the terms, conditions, and decisions in the Approved RMP; 43 CFR 1601.0-5(b)). A land use plan amendment may be necessary to consider monitoring and evaluation findings, substantive new data, new or revised policy, changes in circumstances, or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions, and decisions of the Approved RMP.

Projects that require a decision to extend an existing authorization or permit may require modification to conform to the RMP before approval, such as ROW grant and grazing permit renewals. Projects for which site-specific decisions have not yet been approved, but for which preparation of NEPA documents began before the ROD's effective date, may also require modification to conform to the RMP.

1.6 Project Design Features and Best Management Practices

Appendix A provides a list of project design features and best management practices (BMP) that the BLM could employ.

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 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 consideration for coal leasing and development (i.e., they will not be leased, so no development would occur and no further protection is 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 it receives the Federal permit. The measures in Appendix A 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.

BMPs are state-of-the-art mitigation measures that may be applied on a site-specific basis to avoid, minimize, reduce, rectify, or compensate for adverse environmental or social impacts of land use activities. The BMPs included in Appendix A are not intended to be a complete list but to show examples of commonly used practices the RSFO may require to reduce impacts of surface-disturbing activities, use, or occupancy. More specific BMPs based on local conditions and resource-specific concerns could be developed once a specific proposal is evaluated through the environmental analysis process. Additional BMPs can be proposed by project applicants for activities on BLM-administered lands.

1.7 Plan Monitoring

Land use plan decision monitoring is a continuous process occurring over the life of the RMP, with an aim to maintaining a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions about: (1) whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring), (2) whether RMP allowable use and management action decisions and the resultant implementation actions are effective in achieving program-specific objectives or desired outcomes (effectiveness monitoring), and (3) calculating the cost of delivering a service or product (efficiency monitoring by program elements). Designated ACECs will also be monitored as required by 43 CFR 1610.4-9; see Section 2.15.4 for more information.

The BLM uses conclusions drawn from monitoring to make recommendations on whether to continue current management or to determine what changes need to be made to implementation practices to better achieve RMP goals. Indicators, methods, locations, units of measure, frequency, and action triggers can be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues. If implementation of land use plans does not achieve anticipated desired outcomes, adaptive management may be necessary.

Based on staffing and funding levels, monitoring is prioritized annually consistent with the goals and objectives of the RMP. The BLM may work in cooperation with local, State, and other Federal agencies, or it may use data collected by other agencies and sources when appropriate and available.

1.8 Public Involvement

1.8.1 Public Scoping

The BLM formally initiated the scoping process for the RSFO Proposed RMP/Final EIS on February 1, 2011, with publication of a Notice of Intent in the *Federal Register* (76 *Federal Register* 5607). This began a 60-day public scoping period, during which the BLM released the preliminary planning issues identified by the BLM interdisciplinary team for public review. The formal public scoping period ended on April 4, 2011; however, the BLM considered all public comments received throughout the planning process.

The BLM hosted four public scoping meetings during February and March 2011. These meetings gave the public the opportunity to learn about the RMP, meet the BLM RSFO staff, and identify additional planning issues. The results of these meetings were published in the *Final Scoping Report for the Rock Springs RMP Revision* (BLM 2012a). All meetings were open houses, which allowed members of the public to talk

directly with BLM employees and obtain forms for submitting written comments. During the four scoping meetings, 85 people registered their attendance. During the three public scoping meetings held during February and March 2011, 44 people registered their attendance. The public meetings for the consent decree for wild horses were held in Rock Springs and Rawlins, Wyoming on September 11 and 12, 2013, respectively. A total of 19 people attended those meetings. Scoping efforts resulted in a total of 11 written and oral comments from the public meetings, 24 hardcopy letters mailed or delivered to the BLM, and 63 email comment letters.

1.8.2 Public Comment on the Draft RMP/EIS

The BLM published a Notice of Availability for the Draft RMP/EIS on August 18, 2023, initiating a 90day public comment period, which was later extended through January 17, 2024, for a total of 152 days. During this time, the public could raise concerns and provide input for the BLM to consider before drafting the Proposed RMP/Final EIS. During the comment period, the BLM held three in-person public meetings to inform the public about and solicit comments on the draft documents. The BLM received more than 35,000 comments, including several form letters and email campaigns, resulting in about 4,000 individually distinct comments. The details of the comment analysis process as well as the comments and the BLM's responses can be found in Appendix W of the Approved RMP/Final EIS (BLM 2024).

1.8.3 Review and Protest of the Proposed RMP/Final EIS

The BLM Director's resolution of protests to the Proposed RMP is the final decision for the Department and is not subject to administrative review by the Office of Hearings and Appeals. Pursuant to the BLM's planning regulations in 43 CFR 1610.5-2, any person who participated in the RSFO RMP planning process and had an interest and that might be adversely affected by the planning decisions could protest the proposed planning decisions within 30 days of the date the U.S. Environmental Protection Agency (EPA) published the Notice of Availability in the *Federal Register*. The 30-day protest period for the RSFO Proposed RMP began on August 23, 2024, and ended on September 23, 2024. The BLM received 113 unique protest letter submissions during the subsequent 30-day protest period.

The planning regulations at 43 CFR 1610.5-2 outline the requirements for filing a valid protest. The BLM evaluated all protest letters to determine which protest letters were complete and timely, and which persons had standing to protest. Twenty-four letters were complete and timely but were dismissed because the protesting parties who submitted the letters did not have standing to protest. The remaining 89 letters were complete and timely and were from parties who had standing to protest. Of those, 27 letters contained valid protest issues.

After careful review of the report by the BLM's Assistant Director for Resources and Planning, the Assistant Director concluded that the BLM Wyoming State Director followed the applicable laws, regulations, and policies and considered all relevant resource information and public input. The Assistant Director addressed the protests and issued a Protest Resolution Report to protesting parties and posted the report on the BLM's website; no changes to the RSFO Proposed RMP/Final EIS were necessary. The Protest Resolution Report is available at https://www.blm.gov/programs/planning-and-nepa/public-participation/protest-resolution-reports.

1.8.4 Governor's Consistency Review

In a letter dated August 23, 2024, and as required by its regulations (43 CFR 1610.3-2(e)) to promote consistency with State government plans or policies, the BLM initiated the Wyoming Governor's

Consistency Review for the RSFO Proposed RMP/Final EIS. The consistency review period concluded on October 22, 2024.

The Governor of Wyoming submitted a Governor's Consistency Review Letter dated October 22, 2024. The Governor's Consistency Review Letter listed several areas of inconsistency: ACECs, proposed withdrawals, inconsistency with county land use plans, resource management, Cooperating Agencies, and recommendations and Proposed Action. The BLM Wyoming State Director responded on November 18, 2024, providing detailed responses to these consistency issues; no changes to the RSFO Proposed RMP/Final EIS were necessary to addresses the listed areas of inconsistency.

The Governor of Wyoming was presented the opportunity to appeal the BLM Wyoming State Director's responses pursuant to 43 CFR 1610.3-2(e) within 30 days, ending December 18, 2024. The Governor of Wyoming appealed the BLM Wyoming State Director's responses in a letter dated December 13, 2024. The BLM Director notified the governor in writing and published a notice in the Federal Register of the reasons for the BLM Director's determination to reject the Governor of Wyoming's appeal recommendations, in accordance with 43 CFR 1610.3-2(e).

No changes to the Proposed RMP/Final EIS were necessary as a result of the Governor's Consistency Review letter or appeal.

1.9 Consultation and Coordination

Federal regulations including BLM land use regulations (43 CFR 1610.3), FLPMA (43 U.S.C. 1712), and regulations implementing NEPA (40 CFR 1501.8) direct the BLM to invite eligible Federal agencies and State and local governments to participate as cooperating agencies when drafting an EIS¹.

1.9.1 Cooperating Agency Collaboration

The BLM worked closely with the cooperating agencies to develop alternatives and guide the analysis contained in the EIS. This process included the development of the preliminary alternatives, review of issues raised during scoping and revision of the alternatives, reviews of the analysis contained in the EIS, review of public comments on the Draft RMP/EIS, and development of the Approved RMP/Final EIS.

Cooperating agencies included:

- City of Rock Springs
- Coalition of Local Governments
- Fremont County
- The Governor's Office
- Lincoln County
- Lincoln County Conservation District
- Sublette County Commissioners

- Sublette County Conservation District
- Sweetwater County
- Sweetwater County Conservation District
- Uinta County
- Uinta County Conservation District
- U.S. Bureau of Reclamation

¹ The BLM is aware of the November 12, 2024 decision in Marin Audubon Society v. Federal Aviation Administration, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, the BLM has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500–1508, in addition to the DOI's procedures/regulations implementing NEPA at 43 CFR Part 46, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

- U.S. Environmental Protection Agency (EPA)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Forest Service
- U.S. Department of Agriculture: Animal and Plant Health Inspection Service
- U.S. National Park Service
- Wyoming County Commissioners Association

- Wyoming Department of Agriculture
- Wyoming Department of Environmental Quality (WDEQ)
- Wyoming Game and Fish Department
- Wyoming Geological Survey
- Wyoming Office of State Lands and Investments
- Wyoming Pipeline Authority
- Wyoming SHPO

The BLM held an initial cooperating agency meeting during the scoping period to familiarize cooperators with the RMP development process. The cooperating agencies were formally invited to participate in developing the alternatives and to provide data and other information relative to their disciplines. The BLM held two meetings with the cooperating agencies in February 2011 and November 2012 to discuss the approach to the planning process. Cooperating agencies were then invited to work with the BLM interdisciplinary team in developing the alternatives during seven week-long periods between September 2011 and December 2012. They were invited again to develop and finalize Alternative D during four workshops between October 2017 and May 2019. Cooperating agencies were then invited to discuss updates to the Draft RMP/EIS and preferred alternative on June 22, 2022, and they were offered the chance to review the Agency Preferred Alternative and Draft EIS contents on August 17, 2023. When the Proposed RMP/Final EIS was completed, the Cooperating agencies were briefed during a workshop hosted by the RSFO on August 7, 2024.

1.9.2 Native American Interests

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, requires Federal agencies to coordinate and consult on a government-to-government basis with sovereign Native American Tribal governments whose interests may be directly and substantially affected by activities on federally administered lands. Consultation with federally recognized Native American Tribes is also required under NEPA and FLPMA. Additionally, there are numerous laws, regulations, and guidance documents requiring Tribal consultation to identify any Native American cultural values, religious beliefs, or traditional practices that could be affected by BLM actions on Federal lands. Below are the Tribes with whom the BLM consulted during the RSFO RMP/EIS planning process.

- Eastern Shoshone Tribal Council
- Northern Arapaho Tribal Business
 Council
- Northern Cheyenne Tribal Council
- The Ute Tribe of the Uintah and Ouray Reservation

- Shoshone-Bannock Tribes
- Crow Tribe of Indians
- Fort Belknap Reservation
- Fort Peck Assiniboine and Sioux Tribes

The BLM initiated Tribal consultation for the RSFO RMP/EIS in 2011 by inviting the Native American Tribes with interest in the planning area (listed above) to be cooperating agencies. No Tribes accepted cooperating agency status.

Two of the Tribes, the Eastern Shoshone Tribe and the Ute Tribe of Uintah and Ouray Reservation, expressed interest in conducting field visits and meetings if Tribal issues were identified throughout the process; however, no specific areas of concern have been identified. Additionally, the Joint Business Council for the Eastern Shoshone and Northern Arapaho Tribes have expressed their support for the JMH CAP (BLM 2006) and the effectiveness of the BLM's implementation of that plan. Throughout the planning process, the BLM has kept the Tribes apprised of any progress and relevant RMP information, mostly through including them whenever such information was also sent to the cooperators. Communication was maintained with the Tribal Chairs and the appropriate Tribal Historic Preservation Officers. This included meeting schedules, data sharing, and availability of the internal draft versions of the EIS when ready for review. In addition to government-to-government consultation efforts throughout the RMP planning process, the BLM has also continued to gain information about important Tribal interests through informal outreach and implementation of project-level government-to-government consultations. These informal outreach efforts include contacts from individual Tribal members reaching out for information about specific projects or sites and requests to participate in field visits within specific landscapes of the planning area (e.g., Red Desert). These informal outreach events have helped the BLM and Tribes build relationships and a better understanding of Tribal interests within the planning area. Project-level consultations have been an educational experience for BLM staff learning about how different types of project impacts affect the landscape and how cumulative impacts are evaluated from the Tribal perspective. The RMP revision does not list specific sites that are important to the Tribes. Locations of Sacred sites, Traditional Cultural Properties, and other sites of Tribal significance have been withheld from the document to protect their integrity and help preserve the sites.

1.9.3 U.S. Fish and Wildlife Service

To comply with Section 7(c) of the ESA, the BLM coordinated with the USFWS early in the planning process. The BLM consulted with the USFWS to develop the Biological Assessment (BA). The BA analyzes the potential impacts from implementation of management actions authorized under the RSFO RMP on plant and animal species listed, or proposed to be listed, as threatened or endangered under the ESA. From July 9, 2024, through November 14, 2024, USFWS personnel corresponded on numerous occasions with BLM personnel to assist in the completion of the Rock Springs BA. The BLM provided a final BA for USFWS review on June 10, 2024. The USFWS received all information necessary to complete formal consultation on this proposed action on November 14, 2024. The USFWS issued a Biological Opinion (BO) for the RSFO RMP on November 21, 2024 (Appendix Q), that concluded the following effects of the RMP:

- The USFWS made a determination of "no effect" under all planned programs of the RSFO RMP for whitebark pine (*Pinus albicaulis*), Platte River Downstream Species,² and Colorado River Downstream Species³ via an informal consultation process.
- The USFWS concurred with the BA's determination that activities described in the proposed revised RMP "may affect but are not likely adversely affect" Canada lynx (*Lynx canadensis*), Ute ladies'-tresses (*Spiranthes diluvialis*), grizzly bear (*Ursus arctos horribilis*), North American wolverine (*Gulo gulo luscus*), and the western distinct population segment of yellow-billed cuckoo (*Coccyzus americanus*) via an informal consultation process.
- The USFWS recommended that the BLM follow all BMPs and conservation measures identified in the Statewide Programmatic Canada Lynx BA (BLM 2005a), Statewide Programmatic Ute

² Pallid sturgeon (*Scaphirhynchus albus*), piping plover (*Charadrius melodus*), whooping crane (*Grus americana*), and western prairie fringed orchid (*Platanthera praeclara*).

³ Bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), and razorback sucker (*Xyrauchen texanus*).

ladies'-tresses BA (BLM 2005b), and Statewide Programmatic Grizzly Bear BA (BLM 2005c), as applicable.

• The USFWS provided a programmatic BO for potential adverse effects from the Mineral Resources and Livestock Grazing programs described in the RMP on the Platte River and Colorado River listed species and their designated critical habitats. The USFWS concluded that the RMP does not authorize these projects and implementation of these projects, or any other projects leading to depletions to the Platte River Basin or Colorado River Basin. The BLM has committed to consult in accordance with Section 7 on all new projects, and maintenance and/or expansion of existing projects that will result in water depletions to these river systems under the RMP.

Due to the programmatic scale of the RSFO RMP consultation, specific conservation measures are not included in the BO. However, avoidance, minimization, and mitigation measures that are part of the RSFO RMP were analyzed as part of the proposed action during consultation and must be followed accordingly. Some conservation measures are included in the conference opinions. Beyond the programmatic scale of this consultation, project-specific consultation with the USFWS will be initiated for any proposed actions where species listed or proposed to be listed under the ESA may be present in the area of such proposed action. Individual projects that tier to this programmatic consultation may have terms and conditions applied as a result of future, project-specific consultations.

1.9.4 U.S. Environmental Protection Agency

In accordance with Section 176(c)(1) of the Clean Air Act and the General Conformity regulations in 40 CFR 93 Subpart B and Chapter 8, Section 3 of the Wyoming Air Quality Standards and Regulations, the BLM has coordinated with the EPA throughout the RMP amendment process by phone and through various meetings.

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. For more information on air quality, see Appendix M of the Proposed RMP/Final EIS.

Portions of the planning area are within the Upper Green River Basin, which was designated as marginal nonattainment for ozone (2008 standard) by the EPA; therefore, the applicable *de minimis* thresholds for the ozone precursors of nitrogen oxides and volatile organic compounds must be met for any Federal action. 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 National Ambient Air Quality Standard (NAAQS) or Wyoming Ambient Air Quality Standard (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 an NAAQS or WAAQS as determined by WDEQ in consultation with the BLM.

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 on 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 BMPs to minimize emissions of ozone precursors if the proposed operation would not comply with the General Conformity regulations.

1.9.5 State Historic Preservation Office

In accordance with the requirements of Section 106 of the National Historic Preservation Act, the BLM has consulted with the Wyoming SHPO as a cooperating agency throughout the RMP amendment process. The BLM gave the RSFO Draft RMP/EIS to Wyoming SHPO concurrently with the document's release to the public. The BLM will continue to consult with Wyoming SHPO on all Federal undertakings within the RSFO planning area, pursuant to Section 106 of the National Historic Preservation Act.

1.10 Approval

The decision is hereby made to approve the attached RSFO RMP. This ROD serves as the final decision for the RMP and becomes effective on the date it is signed by the BLM Principal Deputy Director.



Digitally signed by NADA CULVER Date: 2024.12.20 11:46:46 -05'00'

Nada Culver Principal Deputy Director, BLM

2 APPROVED RESOURCE MANAGEMENT PLAN

2.1 Introduction

The U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), Rock Springs Field Office (RSFO) prepared the RSFO Resource Management Plan (RMP). The intent is to provide comprehensive current and future management of BLM-administered lands in the RSFO. This is the Approved RMP for the public lands administered by the BLM RSFO.

The BLM prepared the RMP in compliance with its planning regulations (43 Code of Federal Regulations [CFR] 1600) under the authority of the Federal Land Policy and Management Act of 1976 (FLPMA). This document also meets the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR 1500–1508), the BLM's NEPA regulations (43 CFR 46), and requirements of the BLM's NEPA Handbook, 1790-1 (BLM 2008).

2.2 Lands in the Rock Springs Field Office Planning Area

The planning area encompasses approximately 3.6 million acres of BLM-administered surface land and 3.6 million acres of BLM-administered mineral estate in portions of Lincoln, Sweetwater, Uinta, Sublette, and Fremont Counties in southwestern Wyoming. The RSFO administers various programs, including mineral exploration and development, renewable energy, wildlife habitat, outdoor recreation, wild horses, livestock grazing, and historic trails. This is the Decision Area for which the BLM has the authority to make planning decisions.

The Decision Area includes BLM-administered mineral estate that is underneath privately or State-owned surface land, which is referred to as split estate (Figure 2-1 and Figure 2-2). In these cases, the RMP decisions apply to BLM-administered Federal mineral estate and, to varying degrees, the surface estate. RMP decisions only pertain to the State-owned and privately owned land surface to the extent allowed by law and to the extent that the impacts were the result of the Federal action. The BLM will work with the private/State surface owners to honor their wishes to the extent allowed by law. Anticipated surface and mineral management actions and their direct, indirect, and cumulative impacts (cumulative impacts to the extent that they affect resource management decisions) were included/disclosed in the RSFO RMP/Final EIS.



Figure 2-1 Surface Management

UTM NAD83 Zone 12N

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM


Figure 2-2 Mineral Ownership

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM

2.3 Purpose and Need for the Resource Management Plan

An RMP is a set of comprehensive long-range decisions concerning the use and management of resources administered by the BLM. The purpose of the RSFO RMP is to provide guidance for managing the resources and uses of public lands administered by the BLM RSFO, to provide a foundation for future land management actions within the planning area, and to ensure that public lands are managed in accordance with the intent of Congress, as stated in the FLPMA and other legislation.

BLM regulations require that existing land use plans be revised when necessary to address current resource conditions, changes in circumstances such as evolving demands on resources, and new or revised policy on the national level (43 CFR 1610.5-6). Management direction for lands in the planning area was contained in the Green River RMP and Record of Decision (ROD) (BLM 1997a) and the Jack Morrow Hills (JMH) Coordinated Activity Plan (CAP) (BLM 2006). Since then, new data have become available, new policies established, and old policies revised and these plans no longer satisfactorily address new and emerging issues. Statutes, regulations, policies, and issues regarding management of BLM-administered lands have changed during the life of the plans. The need for this RMP is to respond to the planning criteria, new policies, and changing resource demands, and make certain decisions required by law or policy. The need for the revision of the RMP also stems from the issues identified during scoping.

2.4 Scoping and Issues

The BLM's land use planning process provides opportunities for members of the public to participate in decision-making and allows for full environmental disclosure. This is in accordance with 40 CFR 1506.6; 43 CFR 1610.2; Section 202 of FLPMA; the BLM's land use planning handbook, H-1601-1 (BLM 2005d); and the BLM's NEPA handbook, H-1790-1 (BLM 2008). The formal scoping period began with the publication of the Notice of Intent in the Federal Register (76 *Federal Register* 5607) on February 1, 2011, and ran for 60 days, ending on April 4, 2011.

2.5 Issues Addressed

The RSFO initially identified the following issues to address in the RMP planning process:

- Renewable energy development and associated transmission infrastructure
- Energy and minerals development
- Lands and realty actions
- Special designations and lands with wilderness characteristics
- Visual Resource Management (VRM)
- Cultural and historic resources and Native American concerns
- Urban interface issues
- Recreation management
- Healthy landscapes initiative
- Wild horse management
- Livestock grazing/rangeland management

- Wildlife habitat management, including protection of sensitive species habitat, excluding BLM Sage-Grouse Land Use Plans
- Fire and fuels management
- Air quality

Additional RMP planning issues were identified during the public scoping period and from information gathered in analyzing the existing management situation in the planning area. Based on the input of the public, other government agencies, and the BLM and its cooperators, issues were identified for multiple resource areas. Refer to the *Final Scoping Report for the Rock Springs Resource Management Plan Revision* (BLM 2012a) for a description of the issues raised during the scoping period.

2.6 Issues Considered but not Further Analyzed

Several alternatives and management options were considered as possible methods of resolving resource management issues and conflicts. Some of the alternatives and options considered were received during public scoping. These alternatives were eliminated from detailed analysis because they were ineffective (would not respond to the purpose and need), technically or economically infeasible, inconsistent with the basic policy objectives for the management of the area (for example, inconsistent with a law applicable to the BLM-administered lands within the planning area), or substantially similar in design to an alternative that is analyzed; because implementation is remote or speculative; or because they would have substantially similar effects to an alternative that is analyzed. The following is a list of issues the RSFO considered but ultimately eliminated from detailed analysis. Refer to the RSFO Proposed RMP/Final Environmental Impact Statement (EIS) Section 2.24 for a description of the following issues.

- Closure to livestock grazing
- New wild horse and burro herd management areas (HMA)
- Closure to fluid mineral leasing
- Closure to coal leasing

2.7 Planning Criteria and Other Constraints

Planning criteria are the standards, rules, and guidelines that help guide data collection as well as development and selection of the alternatives in the RMP (43 CFR 1610.4-2). Planning criteria are generally based on applicable laws, BLM Director and State Director guidance, and public and cooperator input (BLM 2005d). The BLM RSFO developed preliminary planning criteria before public scoping, then asked the public to comment on them and suggest additional criteria. Following are the planning criteria that guided development of the RMP:

- The proposed RMP will be in compliance with FLPMA and all other applicable laws, regulations, and policies.
- Impacts from the management alternatives considered in the revised RMP will be analyzed in an EIS developed in accordance with land use planning regulations at 43 CFR 1610 and NEPA regulations at 40 CFR 1500.
- Lands covered in the RMP will consist of public land and split estate lands managed by the BLM. No decisions will be made relative to non-BLM-administered lands.
- For program-specific guidance of land use planning–level decisions, the process will follow BLM Land Use Planning Manual 1601 and BLM Handbook H-1601-1, Appendix C and Appendix D.

- Broad-based public participation will be an integral part of the planning and EIS process.
- If the other agencies, Tribes, and/or governments have officially approved or adopted resourcerelated plans, then the land use plan (i.e., the RSFO RMP) must, to the maximum extent practical, be consistent with their officially approved and adopted resource-related policies and programs, so long as the land use plan is consistent with the policies, programs, and provisions of public land laws and regulations (see 43 CFR 1610.3-2(b)).
- The RMP will recognize the State's responsibility and authority to manage wildlife. The BLM will consult with the Wyoming Game and Fish Department (WGFD). The WGFD identifies big game crucial winter ranges, parturition areas, migration corridors, and transitional habitats.
- The RMP will recognize valid and existing rights.
- The RMP/EIS will incorporate management decisions brought forward from existing planning documents.
- The planning team will work cooperatively and collaboratively with cooperating agencies and all other interested groups, agencies, and individuals.
- The BLM and cooperating agencies will jointly develop alternatives for resolution of resource management issues and management concerns.
- The planning process will incorporate as goal statements the Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for the Public Lands Administered by the BLM in the State of Wyoming (BLM 1997b).
- Wilderness Study Areas (WSA) will continue to be managed under BLM Manual 6330: Management of WSAs until Congress either designates all or portions of the WSA as wilderness or releases the lands from further wilderness consideration. As stated previously, the BLM will analyze lands with wilderness characteristics as part of the planning process.
- Forest management strategies will be consistent with the Healthy Forests Restoration Act.
- Geographic information system (GIS) and metadata information will meet Federal Geographic Data Committee standards, as required by Executive Order (EO) 12906. All other applicable BLM data standards also will be followed.
- The planning process will involve Native American Tribal governments and will provide strategies for the protection of recognized traditional cultural uses.
- All proposed management actions will be based on current scientific information, research and technology, and existing inventory and monitoring information. Where practicable and timely for the planning effort, additional scientific information, research, and new technologies will be considered.
- A Mineral Potential Report, Cultural Resources Overview Report, Biological Assessment, Socioeconomic Baseline Report, and Reasonably Foreseeable Development Scenario for Oil and Gas will be completed and used as part of the RMP revision process.
- The RMP will include adaptive management criteria and protocols as appropriate to deal with future issues.
- A reasonably foreseeable development scenario for fluid minerals will be developed.
- Known areas in the RSFO planning area with coal development potential are located in Sweetwater County, Wyoming. Coal screening determinations were made on these areas and updated during planning efforts for the existing Green River RMP. No additional coal screening determinations

with associated coal planning decisions are planned, unless public submissions of coal resource information or surface resource issues indicate a need for such screening.

• The Wyoming Constitution defines that all natural waters within the boundaries of the State are declared to be the property of the State. The Wyoming State Engineer's Office is charged with the regulation and administration of the water resources in Wyoming.

BLM management actions are subject to certain statutory constraints. FLPMA provides the primary legal authority for the BLM to manage public lands under its jurisdiction and to develop the RSFO RMP. This law provides for land use planning, land acquisition and disposal, administration, rangeland management, rights-of-way (ROW), and designated management areas. All management direction and actions developed as part of the BLM planning process must meet the objectives of BLM's multiple-use management mandate and responsibilities (FLPMA Section 202(c) and (e)). NEPA is the primary law governing the process for development of the RSFO RMP. NEPA requires the consideration and public availability of information on the environmental impacts of major Federal actions significantly affecting the quality of the human environment. Decisions in the RSFO RMP as well as the conduct of the planning process itself must conform to these laws.

The RMP is subject to valid existing rights, which include all valid leases, permits, ROWs, or other land use rights or authorizations in effect on the date of approval of this RMP.

2.8 Planning Process

The BLM uses a multistep planning process when developing RMPs, as required by 43 CFR 1600 and explained in the BLM's Land Use Planning Handbook, H-1601-1 (BLM 2005d). The planning process is designed to help the BLM identify the uses desired by the public of BLM-administered lands. During this process, the BLM considers these uses to the extent they are consistent with the laws established by Congress and the policies of the executive branch of the Federal government. The planning process is issue driven. The BLM used the public scoping process to identify planning issues (noted above) to direct the development of the RSFO RMP. It used the scoping process to introduce the public to the planning criteria.

Title II, Section 202, of FLPMA directs the BLM to coordinate planning efforts with Native American Tribes, other Federal departments, and agencies of the State and local governments as part of its land use planning process. The BLM is also directed to integrate NEPA requirements with other environmental review and consultation requirements, to reduce paperwork and delays (40 CFR 1500.4-5). The BLM coordinated with Native American Tribes and other agencies through ongoing communications, meetings, and collaboration with an interdisciplinary team of BLM specialists and Federal, State, and local agencies.

2.9 Related Plans

The BLM considered Federal, State, local, and Tribal plans that are germane to the development of the RMP. The BLM worked closely with Federal, State, local, and Tribal governments during preparation of the RMP. A list of all plans the BLM considered can be found in Section 1.5 of the RSFO RMP/Final EIS (BLM 2024). Chapter 5 of the RSFO Proposed RMP/Final EIS describes coordination that has occurred throughout development of the RMP.

2.10 Consistency with Laws and Policy

This RMP is consistent with and incorporates requirements identified in all applicable laws and policies. These include EOs, statutes, regulations, and court settlements and rulings. The policies and decisions that

existed before this RMP are outside its scope; however, they have influenced the decisions and constrained the alternatives and are needed to understand management of the Decision Area.

2.11 Goals, Objectives, and Management Decisions

This section of the Approved RMP presents goals, objectives, management actions, allowable uses, and stipulations established for BLM-administered lands in the Decision Area. Most of the desired future conditions are long range and are assumed to require several years to achieve. These management decisions are presented by grouped program area as shown in Table 2-1.

Physical	Mineral	Biological	Heritage and	Land	Special	Socioeconomic
Resources	Resources	Resources	Visual Resources	Resources	Designations	Resources
 Air Quality Geologic Resources Soil Resources Water Resources Lands with Wilderness Characteristics 	 Locatable Minerals Leasable Minerals – Geothermal Leasable Minerals – Oil and Gas Geophysical Exploration Coal Trona (Sodium) Oil Shale Saleable Minerals Leasable Fluid Minerals Leasable Solid Minerals Oil Shale 	 Wildland Fire Ecology and Management Forest and Woodlands Vegetation – Grasslands and Shrublands Invasive Species and Pest Management Riparian and Wetland Resources General Wildlife Big Game Raptors Fish Special Status Species- Plants Special Status Species- Wildlife and Fisheries Wild Horses 	 Cultural Resources Sacred, Spiritual and/or Traditional Cultural Properties Paleontological Resources Visual Resources National Historic Landmarks National Historic Trails National Scenic Trail 	 Lands and Realty Renewable Energy Rights-of- Way and Corridors Back Country Byways Livestock Grazing Management Recreation Special Recreation Management Areas Off-Highway Vehicles 	 Congressionally Designated Trails Wilderness Study Areas Wild and Scenic Rivers Management Areas Areas of Critical Environmental Concern 	Economics and Public Safety

Table 2-1RMP Program Areas

All acreages and maps presented in the Approved RMP were calculated based on GIS data layers generated based on the proposed management actions in the Approved RMP. Given the scale of the analysis, the compatibility constraints between datasets, and lack of data for some resources, all calculations are approximate; they are for comparison and analytic purposes only. Likewise, the figures in Appendix P and the tables in Appendix O are provided for illustrative purposes and subject to the limitations discussed above. Updating these data is considered plan maintenance, which will occur over time as the Approved RMP is implemented, additional surveys are completed, and information is revised.

Table 2-2 identifies the goals, objectives, management actions, and allowable uses in the Approved RMP. Table 2-2 represents the Approved RMP. Maps depicting resource information and stipulations applicable to surface-disturbing activities in the Approved RMP are provided in Appendix P of this ROD. Appendices

A through W of the Proposed RMP/Final EIS contain supporting information for decisions outlined in the Approved RMP. However, only those appendices that support this Approved RMP/ROD are listed and attached:

- Appendix A—Project Design Features and Best Management Practices
- Appendix B—Fluid Mineral Stipulations
- Appendix C—Areas of Critical Environmental Concern Evaluation
- Appendix D—Federal Oil and Gas Operations on Split Estate Lands
- Appendix E—Federal Laws, Regulations, and Policies
- Appendix F—Predator Management
- Appendix G—Land Health Standards
- Appendix H—Reclamation Plan
- Appendix I—Seasonal Wildlife Restrictions
- Appendix J—Land Tenure Adjustment Criteria
- Appendix K—Wild and Scenic River Eligibility Criteria
- Appendix L—Aspen Mountain Communications Site Management Plan
- Appendix M—Air Quality Adaptive Management Strategy
- Appendix N—Recreation Report
- Appendix O—Chapter 2 Detailed Management Decisions by Area
- Appendix P—Maps
- Appendix Q—Biological Assessment and Biological Opinion

Table 2-2 Resource Management Plan

Mana	gement Actions Common to All Resource Programs (0001–0014)
MA#	Goal/Obj. Approved RMP ¹
0001	Apply the Wyoming Land Health Standards (BLM 1997b) to all resources and resource uses on BLM-administered lands. These standards are the minimal acceptable conditions that address the health, productivity, and sustainability of the rangeland (Appendix G).
0002	Manage public lands for compliance with all applicable Tribal, Federal, and State laws, standards, and implementation plans; and with BLM policies and regulations. Manage public lands to support valid and existing rights.
0003	Manage public land resources and resource uses in consideration of all other resource values of the applicable lands.
0004	Apply best management practices (BMP) to authorized BLM activities on a case-by-case basis (Appendix A).
0005	Reclaim surface-disturbing activities in accordance with the current BLM Wyoming and High Desert District reclamation policies and employ the BMPs listed in Appendix A.
0006	Consult, coordinate, and collaborate with all appropriate Tribes and Federal, State, and local governments and agencies regarding land management decisions and actions.
0007	Consult with all potentially affected private landowners when BLM-authorized development is proposed.
0008	Establish an implementation, monitoring, and evaluation process, including an 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 (43 CFR 1610).
0009	Participate in all Memoranda of Understanding (MOU) for the control of pests, air quality monitoring, habitat monitoring, etc.
0010	Consider, on a case-by-case basis, buyout or exchange of existing mineral leases from willing sellers. Congressional legislation would be required to authorize and fund lease buyouts.
0011	Allow, on a case-by-case-basis, activities (e.g., fencing, interpretive and informational signs, barriers) for the purpose of protecting or facilitating management of resource programs or public health and safety.
0012	Human health and safety needs supersede all actions in this plan.
0013	In accordance with CEQ regulations (CFR 1508.20) the hierarchy for mitigation of impacts will be: (1) Avoiding the impact altogether by not taking a certain action or parts of an action; (2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation; (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (5) Compensating for the impact by replacing or providing substitute resources or environments.
0014	All actions approved on a case-by-case basis will be based on site-specific NEPA analysis.

Physica	al Resources (PR) - A	ir Quality (1000–1015)
MA #	Goal/Obj.	Approved RMP ¹
Goals:		
PR-01: N	Ainimize the impact of mar	nagement actions in the planning area on air quality by complying with all applicable air quality laws, rules, and regulations.
PR-02: I	mprove air quality in the pl	lanning area as practicable.
Objectiv	es:	
PR-1.1:	Maintain concentrations of	criteria pollutants in compliance with applicable State and Federal Ambient Air Quality Standards within the scope of the BLM's
DD 1 2.1	7. Maintain agnoantrations of	provention of significant deterioration pollutents associated with management actions in compliance with the applicable
increment	nt.	prevention of significant deterioration ponutants associated with management actions in compnance with the applicable
PR-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 Implementatio	n Plan.
PR-2.2: 1	Reduce atmospheric deposi	ition pollutants to levels below generally accepted levels of concern and levels of acceptable change.
1000	PR-01, PR-02, PR-1.1,	Minimize the impact of BLM management within the planning area on air quality by complying with all applicable air quality
	PR-1.2, PR-2.1, PR-2.2	laws, rules, and regulations.
1001	PR-01, PR-02, PR-1.1,	Manage emissions of gases and particulates from BLM management in compliance with State and Federal regulations, executive
1000	PR-1.2, PR-2.1, PR-2.2	and secretarial orders, and BLM poincy.
1002	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	Manage atmospheric deposition pollutants from BLM management when levels of concern are identified by State and Federal regulatory and land management agencies.
1003	PR-01 PR-02 PR-1 1	Manage air resources in accordance with the Air Quality Adaptive Management Strategy in Appendix M
1005	PR-1.2, PR-2.1, PR-2.2	Manage an resources in accordance with the rin Quanty Maptive Management Strategy in Appendix W.
1004	PR-01, PR-02, PR-03	Support air resource monitoring to determine existing conditions, long term trends, and the effectiveness of air resource
1005	DD 01 DD 02 DD 1 1	
1005	PR-01, PR-02, PR-1.1, PR-1.2 PR-2.1 PR-2.2	Work cooperatively with the Wyoming Department of Environmental Quality (WDEQ) and local governments to address non- attainment area requirements applicable to BLM actions, and with WDEQ to address Best Available Control Technology
	T K 1.2, T K 2.1, T K 2.2	requirements applicable to BLM actions.
1006	PR-01, PR-02, PR-1.1,	Continue to receive data from existing air monitoring stations and work with local, State, and Tribal agencies to assess the need
	PR-1.2, PR-2.1, PR-2.2	for establishing air quality monitoring sites within the planning area.
1007	PR-01, PR-02, PR-1.1,	Work cooperatively with State, local, Federal, and Tribal air quality agencies on regional air quality analyses that include the
	PR-1.2, PR-2.1, PR-2.2	planning area.
1008	PR-01, PR-02, PR-1.1,	Work cooperatively with WDEQ and other regulatory and land management agencies through its Air Quality Interagency
	PR-1.2, PR-2.1, PR-2.2	Review Team.

Physic	Physical Resources (PR) - Air Quality (1000–1015)				
MA #	Goal/Obj.	Approved RMP ¹			
1009	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	Work collaboratively with State, local, and Tribal agencies, industry, and stakeholders to gather, share, and analyze air quality monitoring data to achieve air quality goals and objectives.			
1010	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	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.			
1011	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	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.			
1012	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	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.			
1013	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	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.			
1014	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	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.			
1015	PR-01, PR-02, PR-1.1, PR-1.2, PR-2.1, PR-2.2	Apply, on case-by-case basis, dust abatement measures for BLM authorized activities and coordinate with local and State agencies to control dust on roads using BMPs (Appendix A).			

Physical Resources (PR) - Soil and Geologic Resources (1100–1113)				
MA #	Goal/Obj.	Approved RMP ¹		
Goals:				
PR-04: N	Maintain or improve soil	health.		
PR-05: N	Minimize surface disturb	ance where soil features would be difficult or impossible to reclaim or replace.		
1100	PR-04, PR-05	Maintain or improve soil health (e.g., chemical, physical, and biotic properties) by focusing on making significant progress toward meeting the Wyoming Land Health Standards.		
1101	PR-04, PR-05	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.		
1102	PR-04, PR-05	Minimize or control elevated concentration of salts and sediment loading from Federal lands to the Colorado River system.		

Physic	Physical Resources (PR) - Soil and Geologic Resources (1100–1113)				
MA #	Goal/Obj.	Approved RMP ¹			
1103	PR-04, PR-05	Assess erosion and soil stability using land health evaluations and the Natural Resources Conservation Service (NRCS) soil database.			
1104	PR-04, PR-05	Manage soil resources using BMPs to minimize flood damage, retain water on the landscape, and minimize salt and sediment loading to water resources from human and natural causes consistent with local, State, and Federal regulations.			
1105	PR-05	Analyze surface-disturbing activities by use of the NRCS soil database, site-specific analysis such as collecting soil samples for physical and chemical analysis and identifying plants, evaluating current erosion conditions, and using current ecological site descriptions.			
1106	PR-05	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.			
1107	PR-04	Apply, on a case-by-case basis, photo-point monitoring of channel crossings, culverts, borrow ditch outlets, and surface disturbance.			
1108	PR-04	Inventory, evaluate, maintain or improve existing landscape-level or site-specific watershed improvement projects where necessary.			
1109	PR-04, PR-05	Construct projects, on a case-by-case basis, to protect soils in partnership with private, local, State, Tribal, and Federal programs.			
1110	PR-04, PR-05	Require, on a case-by-case basis, proponent to prepare site-specific implementation plans for surface-disturbing activities to reduce erosion and sediment yield, promote native ground cover, promote water retention, and enhance water quality.			
1111	PR-04, PR-05	Reclaim disturbed areas in compliance with BLM Wyoming and High Desert District Reclamation Plan (Appendix H), 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.			
1112	PR-04, PR-05	Implement practices, on a case-by-case basis, as needed to protect groundwater, vulnerable aquifers, and prevent soil contamination (Appendix A).			
Geology	7				
1113	_	Protect the natural values of Boars Tusk, Pilot Butte, and Emmons Cone. 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.			

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Physical F	Resources (PR) - W	Vater Resources (1300–1312)
MA #	Goal/Obj.	Approved RMP ¹
Goals: PR-06: Impr PR-07: Prote surface wate: PR-08: Take water bodies PR-09: Preve rate of heado PR-10: Impr areas import	rove water quality and q ect and improve surface ers and known aquifer re e appropriate actions wit s resulting from BLM ac rent accelerated channel cut migration) of stream rove important geomorp tant for water quality.	uantity where practical. and groundwater quality and quantity through appropriate measures (e.g., predictive modeling, monitoring, and protection of echarge areas) during BLM activities and permitted actions over the life of the plan. thin State of Wyoming established timeframes to control all causes of impairment and prevent additional listings of impaired ections and permitted activities on watersheds. erosion and adjustments in channel geometry (e.g., width-depth ratio, sinuosity, bank stability, gradient, location of headcuts, and channels as a result of BLM-permitted activities. hic parameters (e.g., width to depth ratio, percent eroding bank) where these parameters are impacted by Federal actions or are in
PR-11: Main	ntain, improve, or reesta	blish proper watershed function to support natural or desired surface water and groundwater flow regimes.
1300 PR 31	R-06, PR-09, PR-11, R-22.1, BR-24, BR- 1.1	Coordinate with appropriate entities to propose, assess, maintain, rehabilitate, and/or reclaim water control structures as needed. Authorize new activities resulting in the surface discharge of produced water only where compatible with other resource objectives and in consultation with stakeholders.
1301 PR	R-12	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 J).
1302 PR BF 31	R-06, PR-09, PR-11, R-22.1, BR-24, BR- 1.1	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.
1303 PR BF 31	R-10, PR-09, PR-11, R-22.1, BR-24, BR- 1.1	 Emphasize the following management in the planning area: 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 (State of Wyoming 1989) would also be applied, as necessary. 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.
1304 PR BF 31	R-10, PR-09, PR-11, R-22.1, BR-24, BR- 1.1	Activity and implementation plans would be designed with measures to reduce phosphate loading to Fontenelle and Flaming Gorge Reservoirs and the Green River.

Physic	Physical Resources (PR) - Water Resources (1300–1312)				
MA #	Goal/Obj.	Approved RMP ¹			
1305	PR-10, PR-09, PR-11, BR-22.1, BR-24, BR- 31.1	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 total maximum daily loads.			
1306	PR-07, PR-09, PR-11, BR-22.1, BR-24, BR- 31.1	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.			
1307	PR-11, PR-06, PR-08, BR-22.1, BR-24, BR- 31.1	Maintain or improve the ecological integrity of the dunal ponds.			
1308	PR-05, PR-11, PR-09	 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 Authorized Officer (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. CSU for fluid minerals. 			
1309	PR-07, PR-05, PR-11	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. CSU for fluid minerals. Apply the above actions to identified and mapped aquifer recharge areas.			

Physical Resources (PR) - Water Resources (1300–1312)			
MA #	Goal/Obj.	Approved RMP ¹	
1310	PR-07, PR-05, PR-11	Avoid surface-disturbing activities and subsurface mineral activity in the identified or designated aquifer recharge area for the towns of Superior and McKinnon. Unavailable to fluid minerals leasing. Designate as a ROW avoidance area.	
1311	PR-12	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.	
1312	PR-07, PR-05, PR-11	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 Appendix A.	

Physic	Physical Resources (PR) - Lands with Wilderness Characteristics (1500–1510)			
MA #	Goal/Obj.	Approved RMP ¹		
Goal:				
PR-13: N	Manage lands with wilderne	ess characteristics as appropriate, considering manageability and the context of competing resource demands.		
1500	PR-13	Maintain an inventory of lands with wilderness characteristics (Map 3-21)		
WY040-	-2011-014			
1501	PR-13	Manage the area in accordance with the Little Mountain ACEC.		
WY040-	-2011-021			
1502	PR-13	Manage the area in accordance with the Little Mountain ACEC.		
WY040-	-2011-027			
1503	PR-13	Manage for multiple use.		
WY040-	-2011-030			
1504	PR-13	Manage for multiple use.		
WY040-	-2011-062			
1505	PR-13	Manage for multiple use.		
WY040-	WY040-2011-059			
1506	PR-13	Manage for multiple use.		

Physical Resources (PR) - Lands with Wilderness Characteristics (1500–1510)			
MA #	Goal/Obj.	Approved RMP ¹	
WY040	-2011-069		
1507	PR-13	Manage the area in accordance with the JMH area (Areas 2 and 3) with consideration of identified wilderness characteristics.	
1508	PR-13	Manage for multiple use.	
WY040	WY040-2011-074		
1509	PR-13	Manage for multiple use.	
WY040-	WY040-2011-088		
1510	PR-13	Manage for multiple use.	

Mineral Resources (MR) - Locatable Minerals (2000–2001)			
MA #	Goal/Obj.	Approved RMP ¹	
Goal: MR-01:	Provide opportunities to e	explore, locate, and develop locatable minerals while protecting other resource values.	
2000	MR-01	Except for lands withdrawn from mineral location, open the planning area to filing of mining claims and exploration for and development of locatable minerals (Map 2-5, 2,798,316 total acres).Pursue proposed withdrawals (for mineral location) in the locations identified in Table 2-3 (900,204 acres) (Appendix O).	
2001	MR-01	The mineral classification withdrawals for phosphate 23,003 acres, coal 46,944, oil shale 2,536,440 are recommended to be revoked (Map 3-17, Map 3-18).	

Mineral Resources (MR) – Leasable Minerals – Geothermal (2100–2101)		
MA #	Goal/Obj.	Approved RMP ¹
2100	MR-02, MR-03	BLM-administered lands in the planning area are open to geothermal leasing, subject to moderate and major constraints; or closed to geothermal leasing (1,076,039 acres, Table 2-4) (Appendix O).
2101	MR-02, MR-03	Consider, on a case-by-case basis, community direct-use geothermal leases subject to appropriate site-specific NEPA. Community direct-use geothermal leases would have appropriate resource protection mitigation measures applied in conformance with the resource management actions specified in this RMP.

Mine	Mineral Resources (MR) - Leasable Minerals – Oil and Gas (2200–2209)		
MA #	Goal/Obj.	Approved RMP ¹	
Goals:			
MR-02	: Maintain or enhance opp	ortunities for mineral exploration and development while protecting other resource values.	
MR-03	: Provide for leasing, expl	oration, and development of oil, gas, and geothermal resources while protecting other resource values.	
2200	MR-02, MR-03	 Well spacing requirements for oil and gas resource protection would defer to the Wyoming Oil and Gas Conservation Commission guidance, with consideration for surface resource values. The Wyoming Oil and Gas Commission is responsible for establishing down-hole spacing for the State of Wyoming, which does not include an assessment of surface resources. The BLM is responsible for managing all aspects of the public lands under its jurisdiction, including the appropriate surface use or "spacing," giving consideration to the design, location, and placement of well sites and facilities and potential impacts on surface resources. Surface spacing for wells would be evaluated based on appropriate NEPA or other analysis that considers impacts on all resources. The resultant surface spacing may not be the same as the down-hole spacing established by the Wyoming Oil and Gas Commission. 	
2201	MR-02, MR-03	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.	
2202	MR-02, MR-03	The Sweetwater County Growth Management Area (45,204 acres) is unavailable to fluid mineral leasing.	
2203	MR-02, MR-03	The planning area, subject to valid existing rights, is:	
		• Open to leasing, subject to existing laws with terms and conditions of the standard lease form (Map 2-10; Table 2-4, Appendix O).	
		• Open to leasing subject to moderate constraints such as overlapping timing limitation stipulations (TLS) (526,067 acres) and CSU (1,116,266 acres) (Map 2-10; Table 2-4, Appendix O).	
		• Open to leasing subject to major constraints such as no surface occupancy (NSO) (215,437 acres) (Map 2-10; Table 2-4, Appendix O).	
		• Close to leasing (1,076,039 acres) (Map 2-10; Table 2-4, Appendix O).	
		• Grant exceptions if the specific criteria apply (see exception/waiver/modification criteria, Appendix B).	
2204	MR-02, MR-03	Consistent with the management of other resources and resources uses, the JMH planning area is open to mineral leasing (Map 2-10; Table 2-4, Appendix O).	
2205	MR-02, MR-03	The JMH CAP area is divided into three implementation management areas. Area 1 is open to fluid mineral leasing with appropriate stipulations applied to protect sensitive resources in Area 1 (Table 2-4, Appendix O).	

Miner	Mineral Resources (MR) - Leasable Minerals – Oil and Gas (2200–2209)		
MA #	Goal/Obj.	Approved RMP ¹	
2206	MR-02, MR-03	JMH 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 O). CSU for fluid minerals. 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.	
2207	MR-02, MR-03, BR-24	Close approximately 32,280 acres of Federal mineral estate along the perimeter of JMH Area 3 to fluid mineral leasing. This acreage represents a distance of ¹ / ₂ mile within portions of the boundary of Area 3.	
2208	MR-03	Close JMH Area 3 to fluid mineral leasing (about 184,064 acres of Federal mineral estate). As existing leases expire in Area 3, they would not be reoffered for lease (Table 2-4, Appendix O), including the perimeter of Area 3 identified above.	
2209	MR-02, MR-03	Buyout or exchange of existing leases from willing sellers may be considered on a case-by-case basis. Congressional legislation would be required to authorize and fund lease buyouts.	

Mineral Resources (MR) - Geophysical Exploration (2300)		
MA #	Goal/Obj.	Approved RMP ¹
2300	MR-02, MR-03	Assess geophysical exploration activities (including those unrelated to oil and gas) in appropriate site-specific NEPA analysis, including a categorical exclusion where appropriate. Apply resource protection mitigation measures in conformance with the resource management actions specified in this RMP and appropriate to the site-specific setting and operations proposed.

Miner	Mineral Resources (MR) - Other Leasable Minerals (2400–2416)		
MA #	Goal/Obj.	Approved RMP ¹	
Goal:			
MR-04	: Provide for both short and	l long-range exploration and development of solid leasable minerals.	
2400	MR-02, MR-04	Leasing of other leasable minerals would be considered on a case-by-case basis and is subject to appropriate mitigation.	
Solid L	easable Minerals (coal)		
2401	MR-02, MR-04	With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-administered public lands and Federal coal lands in the Rock Springs 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 O, Map 2-15).	

Mine	Mineral Resources (MR) - Other Leasable Minerals (2400–2416)		
MA #	Goal/Obj.	Approved RMP ¹	
2402	BR-22.1, BR-24	Retain the closure of North Fork Vermillion Creek Drainage (defined as areas within 200 feet on either side of the waterway) and Sweetwater County Growth Management Area to coal leasing and development (Map 2-15).	
2403	MR-02, MR-04	Subject the Coal Occurrence and Development Potential area to continued field investigations, studies, and evaluations on an as- needed basis to determine if certain methods of coal mining can occur without having a significant long-term impact on resource values.	
2404	MR-02, MR-04	Consider areas outside the coal occurrence and development potential area but within the planning area for leasing for coal development, after review through the site-specific application of the coal screening process and meeting the suitability criteria for coal leasing. Require restrictions on mining activity, such as no surface facilities or subsurface mining with controls on surface facilities, on coal leases where needed for resource protection.	
Public	Land Surface Overlying	State-Owned Coal	
2405	MR-02, MR-04	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 O).	
Trona	(Sodium)		
2406	MR-02, MR-04	The Known Sodium Leasing Area (KSLA) is open to sodium (trona) exploration and consideration for leasing and development.	
2407	MR-02, MR-04	The area outside of the KSLA (within the planning area) is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities.	
2408	BR-35, BR-39, BR-32	The KSLA 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 [ORV] 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.	
Oil Sha	ale		
2409	MR-02, MR-04	Designate 210,000 acres of land within the most geologically prospective oil shale area as available for application for leasing for commercial oil shale development in accordance with applicable Federal and State regulations and BLM policies.	
2410	MR-02, MR-04	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.	
2411	MR-02, MR-04	Specify that lands would be available only for RD&D leases first. The BLM would issue a commercial lease only when a lessee satisfies the conditions of its RD&D lease and the regulations at 43 CFR Part 3926 for conversion to a commercial lease. The preference right acreage, if any, which would be included in the converted lease, would be specified in the RD&D lease.	

Mine	Mineral Resources (MR) - Other Leasable Minerals (2400–2416)		
MA #	Goal/Obj.	Approved RMP ¹	
2412	MR-02, MR-04	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.	
2413	MR-02, MR-04	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).	
2414	MR-02, MR-04	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.	
2415	MR-02, MR-04	Applications for commercial leases using surface mining technologies would only be accepted within an area of 210,000 acres within the most geologically prospective oil shale area where the overburden is 0 to 500 feet thick. Applications for commercial leasing using surface mining technologies would not be accepted in any other areas.	
2416	SD-01, SD-02	Additional areas are closed and not be available for future opportunity to lease for commercial development of oil shale resources under both programmatic alternatives. These additional areas include, but are not limited to:	
		• The MMTA. This area, which is located in the Green River Basin in Wyoming, falls within a portion of the KSLA that encompasses the world's largest known trona deposits. Trona leases were issued within this area, and production occurs from a number of underground mines. The MMTA would be excluded from oil shale leasing until technology or other factors exist to allow development of the oil shale resource without jeopardizing the safe operation of underground trona mines.	
		• Segments of rivers that the BLM has determined to be potentially eligible for wild and scenic river (WSR) status by virtue of a WSR inventory. These river segments and a corridor extending at least ¹ / ₄ mile from the high-water mark on either side of these segments would be excluded from commercial leasing.	
		• Historic trails. Historic trails identified by the BLM Wyoming State Office and a corridor extending at least 1/4 mile on either side of the trail would be excluded from commercial leasing.	
		• Management Area 3, JMH planning area. In accordance with the JMH CAP (BLM 2006), extensive restrictions on surface-disturbing activities have been established for Area 3 within the JMH planning area because of the presence of sensitive natural and cultural resources. The portion of Area 3 that overlaps with the most geologically prospective oil shale resources in the Green River Basin is restricted to NSO and has been excluded from future leasing on the basis of input from the field office.	
		• Expansion Areas around Rock Springs and Green River, Wyoming. The BLM would not issue leases within the "expansion areas" agreed upon with the cities of Rock Springs and Green River, Wyoming.	
		• Incorporated town and city limits. The BLM has determined that it will not issue leases within incorporated town and city limits.	

Mineral Resources (MR) – Saleable Minerals (2500–2505)		
MA #	Goal/Obj.	Approved RMP ¹
Goal:		
MR-05	: Provide access to mineral	l material resources (saleable minerals) to meet demand and necessity.
2500	MR-05	Open the planning area to mineral material disposals, except where closed (884,906 acres) to protect sensitive resources. Areas closed to mineral material disposals are included in Table 2-8 (Appendix O) and Map 2-20.
2501	MR-05	Authorize new community pits and localized common use areas on a case-by-case basis.
2502	MR-05	Establishment of mineral material sites would be evaluated on a case-by-case basis.
2503	MR-05	Establish no additional topsoil sale areas.
		Close existing topsoil sale areas.
2504	BR-35, BR-42, BR-32	Reclaim saleable mineral pits no longer in use, as per BLM Wyoming and High Desert District Reclamation Plans, unless the AO determines the pits could be used for other resource uses or values.
2505	MR-05	Allow collection of petrified wood for hobby purposes and commercial use on public lands with the following restrictions:
		Collection for commercial purposes would require a permit.
		• Quantities would be limited to those described in 43 CFR 3622.
		Collection methods would be limited to hand tools only.
		• Excavations would be filled to match surrounding topography.
		Additional reclamation efforts may be required for commercial permits.
		• No unnecessary, undue degradation would be caused.

Fire and Fuels Management (FM) – Wildland Fire Ecology and Management (3000–3012)

MA #	Goal/Obj.	Approved RMP ¹	
Goals:			
FM-01 and pre	FM-01: Restore natural fire regimes and frequencies to the landscape and utilize wildland fire and vegetation treatments (such as mechanical, chemical, biological, and prescribed fire) to meet multiple-use resource objectives, including returning fire to its natural role in the ecosystem.		
FM-02 under v	FM-02: Protect life, property, and resource values by responding to wildfires based on ecological, social, and legal consequences of the fire and the circumstances under which it occurs.		
FM-03	FM-03: Use fire management strategies and tactics that are appropriate for the values at risk while also minimizing impacts on resource values.		
3000	FM-02, FM-01, FM-03	Partner with the public, counties, interagency cooperators, and stakeholders to strengthen coordination of all fire management activities and encourage the creation of fire safe communities.	
3001	FM-01, FM-02	Manage fire and fuels consistent with approved local fire plans in coordination with counties, cooperators, and stakeholders.	

Fire a	Fire and Fuels Management (FM) – Wildland Fire Ecology and Management (3000–3012)		
MA #	Goal/Obj.	Approved RMP ¹	
3002	FM-03, FM-01	Conduct appropriate emergency stabilization and rehabilitation after wildfire to address current and anticipated needs to resource values at risk.	
3003	FM-01	Consult and cooperate with private landowners, affected partners, and local, State, Tribal, and other Federal agencies on individual treatments (such as prescribed fire and biological, mechanical, and chemical treatments) designed to reduce or modify hazardous fuels accumulations.	
3004	FM-01	Manage fuels in Wildland Urban Interface areas, including industrial interface to reduce potential of losses due to fire consistent with the National Cohesive Wildland Fire Management Strategy.	
3005	FM-01	Immediate control actions will be used only in cases of arson, direct threat to public safety, or a strong potential threat to structural property.	
3006	FM-01, FM-02, FM-03	Base fire suppression actions on achieving the most efficient control, while allowing wildfire to function as a natural ecological role. Develop site-specific activity plans for designated fire management areas.	
3007	FM-02, FM-03	Allow the use of heavy equipment or actions that would cause surface disturbance only after the AO has determined that such use is necessary to protect life or property.	
3008	FM-02, FM-03	Prohibit, except to protect life and property, use of aerial fire suppression agents within ¹ / ₄ mile of Special Status plant species populations, surface water, riparian areas, and rock art sites. Prohibit, except to protect life and property, ground use of fire suppression chemicals, including foaming agents and surfactants, within 300 feet of Special Status plant species populations, surface water, riparian areas, and rock art sites.	
3009	FM-02, FM-03	Wildfires occurring in or directly threatening a developed or active timber sale would receive priority suppression control action.	
3010	FM-03	Restrict prescribed fire use in areas with surface coal or other fossil fuel outcrops.	
3011	BR-35, BR-39, BR-32	 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; therefore, 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. 	

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Fire and Fuels Management (FM) – Wildland Fire Ecology and Management (3000–3012)

MA #	Goal/Obj.	Approved RMP ¹
3012	FM-02, FM-03	Non-commercial timber stands may be included for fuel treatment activities. Standard management practices such as pile and
		broadcast burning may be permitted in forested areas.

Biological Resources (BR) - Forest and Woodlands (4000–4016)		
MA #	Goal/Obj.	Approved RMP ¹
Goals:		
BR-01: classes a	Manage forest and woodla across the landscape that w	nd communities for health, composition, structure, and diversity through forest management practices to provide a range of seral rould provide for multiple use, including the harvesting of forest and woodland products.
BR-02:	Manage forest and woodla	nd health to protect and/or improve watershed values.
BR-03: fuels ob	Maintain, restore, and enha jectives.	ance forest stands to supply forest products to the public consistent with forest health, landscape restoration, and reduction of forest
BR-04: populati	Promote aspen regeneratio ons of trees for their ecolo	n using a variety of vegetation treatments and natural processes within the planning area. BR-48: Maintain and protect unique gical, scientific, and cultural values.
4000	BR-01	Vegetation management and timber sale activities will be conducted in accordance with the Wyoming Forestry BMPs -Water Quality Protection Guidelines handbook.
4001	BR-01	Cooperate with adjoining private, State, and other Federal forest and woodland managers to promote healthy forest and woodlands.
4002	BR-01, BR-03	Use inventory and monitoring data to identify areas of fuel overloading within forest and woodland communities.
4003	BR-02, BR-43, LR-11	Manage forest and woodland health across the landscape to improve vegetative health while providing forest and woodland products to the public. Use all available treatment methods and natural processes.
4004	BR-01, BR-03	Permit, on a case-by-case basis, the collection/harvest of other forest products (e.g., posts and poles, firewood, sawlogs, Christmas trees, burlwood) to meet public demand, forest health objectives, and wildlife habitat requirements.
4005	BR-01, BR-03	Cutting methods include, but are not limited to, clear cutting, individual tree marking, shelter wood, thinning, and group selection. Individual clear-cut units would not exceed 25 acres in size unless a site-specific analysis indicates RMP resource objectives would be met with a larger clear-cut unit size. All clear-cut design and planning would consider other resource value such as escape cover for wildlife. Clear-cut unit size and shape would be designed to maximize natural regeneration and edge effect for wildlife.
4006	BR-01, BR-36, PR-09	Clearcutting is not allowed within 100 feet of drainages or standing and flowing waters. Other logging activity, such as thinning or cable logging, could occur within the 100-foot zone if other resource values would not be adversely affected.

Biolog	Biological Resources (BR) - Forest and Woodlands (4000–4016)		
MA #	Goal/Obj.	Approved RMP ¹	
4007	BR-01, BR-37, BR-24	Timber harvesting activities will 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 will 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.	
4008	PR-05, BR-01, PR-07	Limit logging operations on slopes steeper than 25% to technologically, environmentally, and economically acceptable methods.	
4009	BR-01, FM-01, BR-16	Make slash resulting from timber harvesting 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.	
4010	BR-01, BR-03, BR-04	Complete revegetation surveys following harvest, vegetative treatment, or fire. In areas where natural regeneration fails to self- establish within 5 years, replant forests and woodlands to more effectively sustain commodity production and to support ecological health and function.	
4011	BR-01, BR-04, FM-01	Use best available methods to revitalize decadent stands; managing stand density, and canopy cover according to silvicultural best practices and individual stand objectives.	
4012	BR-01, BR-08	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.	
4013	BR-01	Permit firewood cutting of dead standing or downed forest timber in designated cutting areas.	
Juniper	, Aspen, and Limber Pine	e	
4014	BR-01, BR-02, BR-03	Manage woodland forests to maintain and improve forest health across the forested landscape and to provide forest products to the public. Use all available treatment methods. Encourage pre-commercial thinning in overstocked areas and regenerated timber sale areas when trees in those areas reach the 10- to 30-year age class.	
4015	BR-01, BR-03, BR-06	Allow harvesting of cottonwood trees on a case-by-case basis.	
4016	BR-01, BR-03, BR-08	Design management of conifer and aspen communities to promote forest and woodland health. Old, decadent trees could be left standing or downed to provide cover or other habitat for wildlife.	

Biological Resources (BR) - Vegetation - Grassland and Shrubland Communities (4100-4106)		
MA #	Goal/Obj.	Approved RMP ¹
Goals:		
BR-05	: Manage vegetation comm	unities to restore, maintain, or enhance native vegetation composition and diversity.
BR-06	Provide a mix of natural s	uccessional stages for each vegetation type that incorporates community health, diverse structure, and composition.
BR-07:	: Maintain, improve, enhan	ce, or restore habitat to facilitate the conservation, recovery, and maintenance of populations of native plant species.
BR-08:	: Maintain, improve, or enh	nance areas of ecological importance, priority plant species and habitats, and unique plant communities.
BR-09:	: Maintain, improve, or enh	nance sustainable forage levels for all grazing/browsing animals depending upon identified desired plant communities.
BR-10:	: Manage grazing/browsing	g use levels in consideration of plant, riparian-wetland, and soil health requirements.
4100	BR-05	Manage vegetation using the best available science-based assessment and modeling information (e.g., Lidar) in coordination with such sources as Wyoming Landscape Conservation Initiative and utilizing State and local expertise.
4101	BR-05, BR-06, BR-07	Establish desired plant community objectives for upland and riparian areas for the planning area through individual site-specific activity and implementation planning and as updated ecological site inventory data become available. All activity and implementation plans would incorporate desired plant community objectives.
4102	BR-05, BR-06, BR-07	Native plant communities are the preferred species when establishing desired plant community objectives.
4103	BR-05, BR-06, BR-07	Use naturally occurring wildfires, prescribed fire, chemical treatments, biological treatments, mechanical methods, and livestock grazing to meet vegetation management objectives.
4104	BR-05, BR-09, FM-01	Vegetation manipulation projects would be conducted to reach multiple use objectives and would involve site-specific environmental analysis and coordination.
4105	BR-05, BR-07, BR-09	Adapt management of treated areas, using a site-specific analysis of contributing factors, if not meeting or making significant progress toward vegetation objectives.
4106	BR-05, BR-37, PR-11	Design vegetation treatment projects to maintain or improve water quality and reduce erosion by dissipating erosive energies.

Biolog	Biological Resources (BR) - Invasive Species and Pest Management (4200–4212)			
MA #	Goal/Obj.	Approved RMP ¹		
Goals:				
BR-11: through	Control the introduction as a cooperation, consultation,	nd proliferation of noxious weeds and other invasive species and reduce established populations to acceptable levels determined , and coordination with local, State, and other Federal plans, policies, and agency agreements.		
BR-12:	Prevent introduction and e	establishment of invasive or nuisance species and eliminate threats from those species (aquatic and terrestrial).		
BR-13:	Eliminate threats to sensit	ive fish from non-native fish species.		
BR-14:	Prevent the spread of fish	diseases from trans-basin transfer of water or from other vectors.		
4200	BR-11, BR-12	The BLM will support and cooperate with local efforts to manage and control invasive plant species or noxious weeds, including local plans and control efforts. The BLM will collaborate with weed and pest districts in the treatment of noxious weeds or invasive species.		
4201	BR-05, BR-11, BR-12	Manage for healthy native plant communities by reducing, preventing expansion of, or eliminating the occurrence of noxious weeds and other invasive species by implementing management actions consistent with national guidance and State and local weed management plans.		
4202	BR-11, BR-12	Manage noxious weeds and invasive species (e.g., cheatgrass, halogeton, tamarisk, Russian olive) using an Integrated Pest Management approach for the detection, control, and eradication of new infestations.		
4203	BR-11, BR-12	Maintain adequate baseline information regarding the extent and control of noxious weeds and other invasive species to make informed decisions, evaluate effectiveness of management actions, and assess progress toward goals to improve invasive species management.		
4204	BR-11	Use efficient, established monitoring methodology to measure the success of habitat reclamation, enhancement, and restoration.		
4205	BR-11	Apply pesticides and herbicides in a manner compatible with fish, wildlife, and associated habitat health.		
4206	BR-11	Coordinate with other agencies who manage native and non-native species.		
4207	BR-11, BR-12, BR-05	Promote public education regarding invasive species and the means to address them.		
		Use Integrated Pest Management Techniques and BMPs (Appendix A) for all activities to control and prevent the introduction, establishment, and spread of noxious weeds and other invasive species.		
4208	BR-11, BR-12, BR-24	Adopt and support the objectives, strategies and actions listed in the Wyoming Aquatic Invasive Species Management Plan or as updated/revised (WGFD 2010).		
4209	BR-12, BR-14, BR-16	Prohibit equipment, including that used for fire suppression, to transfer water from watersheds with aquatic invasive species or fish diseases to other waters.		
		Inspect, clean or decontaminate fire suppression vehicles before coming into, or within, the RSFO from areas containing aquatic invasive species, noxious weeds, and other invasive species.		

Biological Resources (BR) - Invasive Species and Pest Management (4200–4212)		
MA #	Goal/Obj.	Approved RMP ¹
4210	BR-12, BR-16, BR-17	Designate, in coordination with Animal and Plant Health Inspection Service—Wildlife Services (APHIS-WS), the JMH Coordinated Activity planning area as a "restricted control area" for animal control. Discuss and consider control techniques and methods for the remainder of the planning area at the annual management meeting between the BLM and APHIS-WS.
4211	BR-11, BR-28, BR-30	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.
4212	BR-11, BR-28, BR-30	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.

Biological Resources (BR) – Riparian and Wetland Resources (4300–4302)		
MA #	Goal/Obj.	Approved RMP ¹
Goal:		
BR-15:	Achieve and/or maintain F	Proper Functioning Condition (PFC) as a minimum condition within riparian areas.
4300	BR-15, BR-06, BR-10, BR-22.1, BR-24, BR- 31.1	Manage all riparian/wetland areas and streams to meet or make significant progress toward meeting the Wyoming 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 objective to achieve, or make significant progress toward achieving, the Wyoming Land Health Standards.
4301	BR-15, BR-06, BR-08, BR-22.1, BR-24, BR- 31.1	Maintain, improve, or restore riparian habitat to provide wildlife and fish habitat, improve water quality, and enhance forage conditions.
4302	BR-11, BR-12, BR-13, BR-14	Pursue, where possible, acquisition of additional riparian area acreage to enhance riparian area management.

Biological Resources (BR) – Fish and Wildlife (4400–4419)			
MA Goal/Obj. #	Approved RMP ¹		
Goals and Objectives:			
BR-16: Manage for the biolo	gical integrity of terrestrial and aquatic ecosystems to maintain or enhance fish and wildlife habitat.		
BR-17: Manage for the biolo of all native, desirable non-m	gical integrity and habitat function of terrestrial and aquatic ecosystems to sustain, enhance, and/or optimize distribution and abundance ative, and Special Status Species consistent with habitat capability.		
BR-18: Conserve and enhan objectives, WGFD's Strateg	the habitats at the ecosystem or landscape scale sufficient to support functioning habitat to meet WGFD terrestrial and aquatic wildlife c Habitat Plan, State Wildlife Action Plan, WGFD's Ungulate Migration Strategy Plan, and strategic population plans.		
BR-19: Maintain and restore corridors, and fish passages	connectivity between important seasonal ranges and life stage habitats. Maintain functioning terrestrial and aquatic habitats, migration hat allow free movement.		
BR-20: Maintain and/or imploss of crucial habitats or fun	rove habitat quality and quantity to ensure the continued viability of sensitive habitats. Manage areas of sensitive resources for no net ction of these important habitats, in consideration of other RMP objectives.		
BR-21: Maintain current and in accordance with the Migr	BR-21: Maintain current and historical raptor habitats 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).		
BR-22: Maintain, restore, an channel shape. Riparian hab	d/or enhance fisheries habitats in the planning area so they achieve stable stream conditions with hydrologically stable and resilient tats would be managed to promote healthy vegetative structure to achieve optimum conditions for desired aquatic wildlife populations.		
BR-22.1: Provide suitable has states of Colorado, Utah, and	BR-22.1: Provide suitable habitat to support the Goals and objectives of the Conservation Agreements and Strategies (CAS) for Colorado River cutthroat trout in the states of Colorado, Utah, and Wyoming and for the "3-Species" roundtail chub, flannelmouth sucker, and bluehead sucker.		
BR-23: Provide quality habi in the planning area.	BR-23: Provide quality habitats to support introduction, reintroduction, augmentation, etc. of desirable priority aquatic and terrestrial wildlife species on public lands in the planning area.		
BR-24: Manage environmental risks and associated impacts in a manner compatible with sustaining plant, fish, and wildlife populations and habitats.			
BR-25: Manage habitat to su	pport long-term recreational and educational benefits and opportunities for the public.		
BR-26: Provide for consumptive and non-consumptive wildlife and fisheries resource uses and activities on public lands.			
BR-49: Manage in accordan	e with the recommendation of the statewide Bighorn/Domestic Sheep Interaction Report as updated as State statute.		
BR-50: Designated Big Game Migration Corridors will be managed in a manner consistent with the Wyoming Governor's EO 2020-1, "Wyoming Mule Deer and Antelope Migration Corridor Protection," with consideration of the following for all development and uses within the corridor: bottlenecks, high use areas, stopovers within high use areas, and low and medium use areas with stopovers as defined in the EO (Wyoming Executive Department 2020).			
General Wildlife			
4400 BR-25, BR-26	Cooperate with the WGFD to recommend adjustments to herd objectives based upon habitat condition trends and recommend wildlife use adjustments if monitoring data indicate adjustments are necessary.		
4401 BR-18, BR-33	Maintain, restore, and/or enhance fish and wildlife habitat, and habitat functionality. Consider all mitigation options when developing mitigation for project-level activities for terrestrial and aquatic wildlife and Special Status Species habitats.		

Biolo	Biological Resources (BR) – Fish and Wildlife (4400–4419)		
MA #	Goal/Obj.	Approved RMP ¹	
4402	LR-01, LR-04, PR-06, BR-24	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.	
		Acquire, on a case-by-case basis, additional land along perennial water and wetlands (Appendix J) to enhance riparian area management.	
		Pursue water rights for BLM water developments on a case-by-case basis.	
4403	BR-20, BR-19	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.	
4404	BR-16, BR-10	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.	
4405	BR-16, BR-17, BR-20	Allow development and/or maintenance of special management and riparian management exclosures, subject to adequate mitigation of impacts following BLM mitigation policies.	
		Review 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.	
4406	BR-11, BR-24, BR-35	The BLM will continue to coordinate and to annually review with APHIS-WS their annual wildlife damage management plan for animal damage control activities on public lands. 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, would be identified on a case-by-case basis, and APHIS-WS would be requested to amend or adjust proposed animal damage control activities accordingly.	
4407	BR-16, BR-17, BR-25	Develop habitat management plans (HMPs) if a need is identified. Consider areas included in the WGFD Strategic Habitat Plan and State Wildlife Action Plan and other areas to mitigate wildlife habitat and habitat functionality losses. The Sublette Mule Deer Corridor has been identified as an HMP.	
Big G	Big Game		
4408	BR-41, BR-09, BR-26	Manage wildlife habitat to provide forage to support the WGFD 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.	
4409	BR-24, BR-41	Evaluate and adjust grazing schedules, at the time of permit renewal, if any conflicts with parturition areas exist.	

Biolo	Biological Resources (BR) – Fish and Wildlife (4400–4419)			
MA #	Goal/Obj.	Approved RMP ¹		
4410	BR-24, BR-41	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.		
4411	BR-24, BR-41	Allow fluid mineral surface occupancy and use within a WGFD 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 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. CSU for fluid minerals.		
4412	BR-20, BR-17, BR-41	Manage big game crucial winter range and parturition habitat in a manner that meets or is making significant progress toward meeting the Wyoming Land Health Standards, and the plant condition and composition that would maintain a functional habitat for the benefit of all herbivores.		
		Monitor and develop, on a case-by-case basis, plans to address any undesirable resource conditions.		
4413	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 on 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.		
4414	BR-24, BR-41	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 I.		
Rapto	brs			
4415	BR-21, BR-24, BR-35	Allow surface occupancy within the identified buffer of occupied and historical raptor nests, subject to adequate mitigation of		
1115	51, 51, 51, 51, 51, 55	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).		

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Biolo	Biological Resources (BR) – Fish and Wildlife (4400–4419)			
MA #	Goal/Obj.	Approved RMP ¹		
		• Ferruginous hawk – ¹ / ₂ mile		
		• Bald eagle – 1 mile		
		• Golden eagle – ¹ / ₄ mile		
		• Burrowing owl – ¹ / ₄ mile		
		• General raptor $-\frac{1}{4}$ 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).		
4416	BR-21, BR-24, BR-35	Avoid surface-disturbing and disruptive activities seasonally within the identified buffer of occupied nests and historical raptor nest sites (see Appendix I).		
4417	BR-21, BR-24, BR-35	Conduct raptor nest surveys within 1 mile of proposed surface uses or activities, on a case-by-case basis, if suitable raptor nesting habitat is identified.		
Fish				
4418	BR-24, BR-22	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.		
		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.		
		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.		
		Evaluate requests for exceptions to TLS 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.		
4419	BR-19, BR-22	Remove human-caused barriers to fish passage where appropriate and/or feasible to provide for more genetic diversity, increased habitat, and population stability.		
		Human-caused barriers could be placed to protect conservation populations of fish species from hybridization or competition.		

Biological Resources (BR) – Special Status Species (4600–4616)		
MA #	Goal/Obj.	Approved RMP ¹
Plants		
Goals:		
BR-27: N	Manage for the biological	integrity and habitat function to facilitate the conservation, recovery, and maintenance of populations of Special Status plant
species a	nd to avoid contributing to	o the listing of or jeopardizing the continued existence or recovery of Special Status Species and their habitats.
BR-28: N	Maintain or enhance the ha	bitats that support or could support Special Status plants and their native pollinators.
BR-29: N	Maintain sufficient undistu	rbed or minimally disturbed habitats to protect Special Status plant species.
BR-30: N	Manage specific environm	ental hazards, risks, and impacts in a manner compatible with Special Status plant species' health.
4600	BR-27, BR-28, BR-30	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 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.
4601	BR-27, BR-28, BR-29	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 off-highway vehicle (OHV) vehicular travel, including those vehicles used for geophysical exploration activities,
		surveying, etc.
		Prohibit the use of explosives and blasting.
4602	BR-27, BR-29, BR-30	Limit all surface-disturbing fire suppression activities within Special Status plant species habitat to existing roads and trails, except for the protection of life or property.
4603	BR-28, BR-29	Activities such as fencing, interpretive signs, or barriers to ensure protection to the Special Status plant species and their habitat would be considered on a case-by-case basis.
4604	BR-27, BR-28, BR-29	Pursue acquisition with a willing seller of approximately 1,920 acres of additional Wyoming tansymustard (<i>Descurainia torulosa</i>) habitat on Pine Butte.

Biologi	ical Resources (BR) -	- Special Status Species (4600–4616)	
MA #	Goal/Obj.	Approved RMP ¹	
4605	BR-27, BR-28, BR-29	Should new Special Status plant species be identified, they will be managed under the same prescriptions described above for the known species. This may result as new information about vegetation types and communities is acquired.	
4606	BR-27, BR-28, BR-29	Evaluate, on a case-by-case basis, known locations of Special Status Species to determine if they meet the relevance and importance (R&I) criteria to be considered for ACEC designation. If appropriate, propose such locations for ACEC designation and amend this RMP as necessary (see the section on Special Designations).	
4607	BR-27, BR-28, BR-29	Allow surface-disturbing activities in Special Status plant species' mapped habitat, subject to adequate mitigation of impacts following BLM mitigation policies. CSU for fluid minerals. Designate as a ROW avoidance area.	
4608	BR-27, BR-28, BR-29	Conduct vegetation treatments in Special Status plant species habitats only when they would benefit these species and their pollinators over the long term.	
4609	BR-27, BR-28, BR-30	Prohibit range improvement projects such as troughs, reservoirs, fences, and other surface-disturbing activities within 1,320 feet (¼ mile) of Special Status plant species populations, unless they are determined to be beneficial to that species.	
4610	BR-08, BR-17, BR-20	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.	
Wildlife	Wildlife and Fisheries		
Goals and Objectives: BR-32: Protect or enhance areas of ecological importance for Special Status Species. Manage for no net loss of habitat or population of any Special Status Species, in consideration of other RMP objectives. BR-33: Maintain, restore, and/or enhance Special Status Species habitat to achieve full site potential in coordination and consultation with the USFWS and other local, State, and Federal agencies in an effort to prevent listing under the ESA (1973).			
BR-35: 1	Manage specific environme	ental hazards, risks, and impacts in a manner compatible with Special Status Species health.	
BR-38: Provide quality habitats to support the introduction, reintroduction, and augmentation of identified high priority and/or Special Status Species in consultation and coordination with appropriate agencies.			
BR-39: Sustain the integrity of sagebrush habitat to provide continuity and quality necessary to maintain sustainable populations of sagebrush obligate species. BR-41: Protect, enhance, and restore wildlife habitat in support of Wyoming Game and Fish population objectives.			
BR-43: Maintain and restore healthy aspen communities and associated understory vegetation to benefit multiple aquatic and terrestrial wildlife species.			
BR-44: Maintain and restore healthy willow, cottonwood, and other native riparian shrub communities, and associated understory vegetation to benefit multiple aquatic and terrestrial wildlife species.			
4611	BR-34, BR-31	Develop and implement HMPs, activity plans, or use other mechanisms to protect high priority and Special Status Species.	

Biological Resources (BR) – Special Status Species (4600–4616)				
MA #	Goal/Obj.	Approved RMP ¹		
4612	BR-31, BR-32, BR-34	Manage Special Status Species habitat for the plant condition and composition that maintains a healthy functional habitat.		
4613	BR-25, BR-34, BR-32	Conduct surveys of suitable habitat for federally listed, proposed, candidate, and BLM/State sensitive species before any surface is disturbed.		
		Suspend all disruptive activities and develop/implement protective measures (in consultation with the USFWS and WGFD) any time a listed, proposed, candidate, or BLM/State sensitive species is found. Take proactive measures to improve habitat character as needed in accordance with Section 7 of the ESA and BLM Manual 6840 policy.		
Avian Predators				
4614	BR-35, BR-21	Require, on a case-by case basis, measures (e.g., avoidance, burying power lines, installation of perch deterrence devices, and exclusion of artificial nest structures) to limit hunting perches or artificial nest sites for avian predators within 1,320 feet (¼ mile) of sensitive prey species habitat (Appendix F).		
Amphibians and Reptiles				
4615	BR-24, BR-41	Stipulate or implement, on a case-by-case basis, management guidelines as identified in Habitat Management Guidelines for Amphibians and Reptiles of Northwestern U.S. and Canada, PARC Technical Publication HMG-4 (Pilliod and Wind 2008), and similar future guidance for activities that have the potential to affect known or potential amphibian/reptile habitat. Base decisions on the best available science in consultation with the WGFD.		
Mountain Plover				
4616	BR-35, BR-32	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 ¹ / ₄ mile until the end of the nesting season.		
		Survey protocol would be conducted by a qualified biologist and follow best available science and methods as determined by the Rock Springs BLM Biologist.		

Biological Resources (BR) – Special Status Species - Greater Sage-Grouse (4700–4800) ⁴			
MA #	Goal/Obj.	Approved RMP ¹	
Goals, objectives, and management direction for greater sage-grouse are in accordance with the Greater Sage-Grouse Rangewide Planning Amendments.			

⁴ There is currently no connectivity habitat identified in the planning area by the WGFD.

Biological Resources (BR) – Wild Horses (4900-4910)				
MA #	Goal/Obj.	Approved RMP ¹		
Goals and Objectives:				
WH-01: N	Manage wild horses in the	planning area at Appropriate Management Levels (AMLs) for the Little Colorado HMA.		
WH-02: I	Provide adequate habitat for	or free-roaming wild horses through management consistent with the principles of multiple use for the Little Colorado HMA.		
WH-03: I	Provide opportunities for t	he public to view wild horses for the Little Colorado HMA.		
Little Co	lorado HMA			
4900	WH-01, WH-02, WH- 03	Manage wild horses adhering to all applicable laws, agreements, court orders, and decisions for each HMA and consider private property rights.		
4901	WH-01, WH-02, WH- 03	An AML of 69 to 100 horses in the Little Colorado Desert is established.		
4902	WH-01, WH-02, WH- 03	The site specific activity plan for the HMA in the planning area will be maintained to conform with RMP objectives for vegetation management and implemented.		
4903	WH-01, WH-02, WH- 03	Specific habitat objectives for HMAs will be developed.		
4904	WH-01, WH-02, WH- 03	Water developments will be provided if necessary, to improve herd distribution and manage forage utilization.		
4905	WH-01, WH-02, WH- 03	Water developments on crucial winter ranges could be allowed if they conform with wildlife objectives and do not result in adverse impacts on the crucial winter range.		
4906	WH-01, WH-02, WH- 03	Wild horse herd management will be directed to ensure that adequate forage will be available to support AMLs in the herd unit and that the herd maintains appropriate age, sex, and color ratios.		
4907	WH-01, WH-02, WH- 03	A selective gathering program will be implemented in the wild horse HMA. Gathering plans will be prepared for removal of excess horses from inside and outside the wild horse HMA.		
4908	WH-01, WH-02, WH- 03	Fencing in the wild horse HMA will be restricted to those situations where multiple-use values will be enhanced. All fences will be constructed to minimize restriction of wild horse movement.		
4909	WH-01, WH-02, WH- 03	Opportunity for public education and enjoyment of wild horse herd will be provided by placing interpretive signs, providing interpretive sites, and providing access to the herd area.		
4910	WH-01, WH-02, WH- 03	Other resource uses will be maintained and protected consistent with those resource management objectives while maintaining viable, healthy wild horse herds and appropriate herd management levels. Wild horse HMAs will be managed in a natural, healthy state and for an ecological balance among wild horses and land and resource uses.		

Biological Resources (BR) – Wild Horses (4900-4910)					
MA #	Goal/Obj.	Approved RMP ¹			
Adobe To	Adobe Town, Great Divide Basin, Salt Wells Creek, and White Mountain HMAs				
The ROD for Wild Horse Management (WHM ROD) for RSFO and Rawlins Field Office (RFO) was signed in May 2023 and amended the 1997 RSFO RMP (BLM 2023). The management actions from the WHM ROD are carried forward in this Approved RMP and are presented in their entirety below. For more information on that planning process, please see the following link for the completed WHM ROD document: <u>https://eplanning.blm.gov/eplanning-ui/project/2009946/570</u> .					
Goals and	l Objectives:				
WH 1: Ma	anage wild horses in the p	lanning area at AMLs to support a thriving natural ecological balance.			
WH 2: Pro	ovide adequate habitat for	free-roaming wild horses through management consistent with the principles of multiple use.			
WH 3: Pro	ovide opportunities for the	e public to view wild horses.			
WH 4: Mo	onitor wild horse populati	ons and rangeland conditions to inform wild horse management decisions.			
MA001- WHM ROD	WH 2	Manage wild horses adhering to all applicable laws, agreements, court orders, and decisions for each HMA and consider private property rights.			
MA002- WHM ROD	WH 1, WH 4	Specific habitat objectives for HMAs would be established through the development and implementation of HMA plans for each HMA or Complex. Consideration will be given to desired plant communities, wildlife habitat, watershed, livestock grazing, and other resource needs.			
MA003- WHM ROD	WH 2, WH 3	Wild horses would be managed within two wild horse HMAs. These are the Adobe Town and White Mountain HMAs (Map 3 in the WHM ROD [BLM 2023]). Revert the Great Divide Basin and Salt Wells Creek HMAs to herd area (HA) status and manage them for zero wild horses.			
MA004- WHM ROD	WH 1, WH 2	Revert the entire Salt Wells Creek HMA to HA status and manage for zero wild horses.			
MA005- WHM ROD	WH 1, WH 2	Retain the White Mountain HMA and manage AML in accordance with MA009-WHM ROD.			
MA006- WHM ROD	WH 1, WH 2	Revert the entire RSFO portion of the Adobe Town HMA to HA status and manage for zero wild horses.			
MA007- WHM ROD	WH 1, WH 2	Revert the checkerboard portion of the Adobe Town HMA within the RFO to HA status and manage for zero wild horses. Revert the portion of the HMA north of the existing Corson Springs southern allotment boundary fence to HA status and manage for zero wild horses. Retain the remainder of this HMA within the RFO and manage AML in accordance with MA009-WHM ROD.			

Biological Resources (BR) – Wild Horses (4900-4910)				
MA #	Goal/Obj.	Approved RMP ¹		
MA008- WHM ROD	WH 1, WH 2, WH 3	Revert the entire Great Divide Basin HMA to HA status and manage for zero wild horses.		
MA009- WHM ROD	WH 1	 Maintain an AML of 464 to 836 wild horses on two HMAs. Allocate 10,032 animal unit months (AUM) to wild horses to support high AML. Adobe Town (RFO): Acres: 355,094 (BLM: 345,277) AML: 259–536 AUMs: 3,108–6,432 White Mountain: Acres: 388,488 (BLM: 207,350) AML: 205–300 AUMs: 2,460–3,600 		
MA010- WHM ROD	WH 1, WH 2	AUMs previously allocated to wild horse use, but no longer consumed by wild horses, could be allocated to wildlife, livestock, or other ecosystem functions. Determine how to allocate these AUMs after conducting an in-depth review of intensive monitoring data including: grazing utilization, use patterns, Standards for Healthy Rangelands, trend monitoring, actual use, and climate data.		
MA011- WHM ROD	WH 2	Provide water developments for wild horses where necessary to improve wild horse herd distribution and manage forage utilization. Allow water developments for wild horses on crucial winter ranges if they conform to wildlife objectives and do not result in adverse impacts on the crucial winter range.		
MA012- WHM ROD	WH 2	Utilize a variety of population growth suppression tools to help manage wild horse populations. These tools could include gelding, spaying, sex ratio skewing, or other population growth control methods (mechanical, surgical, or chemical). Implementation of any of these population growth suppression tools would be through a site-specific activity plan. Periodically supplement any herds with potential low genetic diversity with additional wild horses from other HMAs to maintain the genetic diversity of the herd.		
MA013- WHM ROD	WH 1	Prepare gather plans for removal of excess wild horses from inside and outside the wild horse HMAs.		
Biologic	Biological Resources (BR) – Wild Horses (4900-4910)			
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MA #	Goal/Obj.	Approved RMP ¹		
MA014- WHM ROD	WH 2	Allow new fencing in wild horse HMAs on a case-by-case basis that does not impede or endanger wild horse management and supports other resource values.		
MA015- WHM ROD	WH 3	Provide opportunity for public education and enjoyment of wild horse herds by placing interpretive signs, providing interpretive sites, and providing viewing access to the HMAs.		
MA016- WHM ROD	WH 1, WH 2, WH 4	AML may be adjusted as needed through separate NEPA analysis when site-specific data demonstrate a change in AML is appropriate. To adjust AML, the BLM will conduct and document the multi-tiered analysis process outlined in the Wild Horses and Burros Management Handbook (H-4700-1, Appendix 3). This analysis will include an in-depth review of intensive monitoring data.		

Heritage and Visual Resources (HR) – Cultural Resources (5000–5009)		
MA #	Goal/Obj.	Approved RMP ¹
Goals an	nd Objectives:	
HR-01: C	Compile a record of known	n cultural resources in the RSFO and assign those resources to appropriate uses.
HR-02: N	Manage each type of cultu	ral resource according to their proper use allocation and monitor those resources' condition and use.
HR-2.1: adverse e	Develop activity plans or perfects from other uses.	project/site-specific treatment plans or other protective measures for significant cultural resources at risk from deterioration or
HR-03: C interests decisions	Consult with Native Amer or concerns. Determine th s.	ican Tribal governments regarding proposed land uses having the potential to affect cultural resources identified as having Tribal to types of resources of concern to various Tribes and take Tribal views into consideration when making land use allocations or
HR-04: F	Promote stewardship, cons	servation, and appreciation of cultural resources.
HR-05: N	Maintain and enhance prog	grams that provide opportunities for scientific research of cultural resources.
HR-06: F	Provide opportunities for p	public education and interpretation of cultural resources.
HR-6.1:	Conduct presentations for	schools, community organizations, and the public.
HR-07: F	Provide for appropriate int	terpretation of sites of high public interest.
HR-08: F Sugarloa	Pursue establishment of sit f, and La Barge petroglyp	te stewardship programs at vulnerable cultural sites, including, but not limited to, the Tolar, White Mountain, Cedar Canyon, h sites.
HR-09: F	Preserve and stabilize sign	ificant cultural resources, especially resources that face immediate threat and/or historic structures in high public use areas.
5000	HR-01, HR-2.1	Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations (FLPMA, Section 103(c), 201(a) and (c); National Historic Preservation Act [NHPA], Section 110(a); Archaeological Resources Protection Act [ARPA], Section 14(a)).
5001	HR-15, HR-03	Identify culturally sensitive sites on BLM-administered lands within the planning area.
5002	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-03	Coordinate with other BLM programs preplanning measures to prevent potential conflicts before they occur.
5004	HR-02, HR-01	Allow authorized activities to proceed in accordance with current Wyoming State Protocol and NHPA regulations, with an emphasis on avoiding National Register of Historic Places (NRHP)-eligible properties.

Herita	Heritage and Visual Resources (HR) – Cultural Resources (5000–5009)		
MA #	Goal/Obj.	Approved RMP ¹	
5005	HR-05	Manage the prehistoric quarry sites (48SU1263, 0.11 acre and 48SU7632, 0.66 acre) to emphasize scientific information.	
		Petition to segregate and pursue a withdrawal from locatable mineral entry.	
		Allow only those activities related to scientific investigations or traditional cultural practices.	
		Manage as closed to mineral material sales/disposal.	
		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.	
5006	HR-09, HR-10, LR-01	Exchanges for acquisition and cooperative agreements would be pursued to enhance management of cultural resources.	
5007	HR-02, HR-05	Manage sites allocated for conservation, traditional use, or public use to avoid adverse effects; manage sites allocated for scientific or experimental use for their research potential.	
5008	HR-08, HR-12, HR-07	Develop and enhance the site stewardship program and public education opportunities in coordination with recreation and other programs for National Historic Trails (NHT) and other sites.	
5009	HR-02, HR-05	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.	
		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.	

Heritage and Visual Resources (HR) – Specific Cultural Resources (5100–5114)

MA # Goal/Obj.

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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.

SD-23: Manage the Crookston Ranch to preserve its historic features for the interpretation of ranching history in the area.

Rock Art Sites		
5100	HR-13, HR-16, HR-6.1	Manage significant rock art sites (including both prehistoric and historic inscriptions) and their surrounding setting within ¹ / ₂ mile to protect Native American, cultural, and historical values.

Heritage and Visual Resources (HR) – Specific Cultural Resources (5100–5114)		
MA #	Goal/Obj.	Approved RMP ¹
		These include:
		• Cedar Canyon – 21.7 acres
		• LaBarge Bluffs – 20 acres
		• Sugarloaf – 2.3 acres
		• Tolar – 8.3 acres
		• White Mountain – 21.6 acres
		The rock art site (excluding the 1/2 mile setting):
		Prohibit surface occupancy
		NSO for fluid minerals
		Close to mineral material sales/disposal.
		• Maintain existing withdrawals (Sugarloaf petroglyphs [5 acres] and White Mountain [20 acres]) and pursue new withdrawals from mineral location.
		• Designate as a ROW exclusion area.
		• Allow subsurface mining only if a site-specific analysis determines no adverse effects will occur.
		• Designate as VRM Class II.
		• Allow geophysical activities such as shothole, blasting, and vibroseis locations, provided they are at least ¹ / ₄ mile from a significant rock art site, and a site-specific analysis determines that visual intrusions and adverse effects would not occur.
		Setting (within ¹ / ₂ mile of site):
		• Allow surface-disturbing activities, visual, audible and atmospheric intrusions only if they do not adversely affect Native American, cultural or historical values.
		• CSU for fluid minerals.
		• Designate as a ROW avoidance area.
		• Designate as VRM Class II.
Other	Sites	
5101	HR-09, HR-12	Close the Tri-Territory Marker (10 acres) to surface-disturbing activities. The Tri-Territory Marker is open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area.
		Manage as: 1) closed for fluid minerals; 2) closed to mineral material sales/disposal; 3) closed to all solid mineral leasing; 4) petition to segregate and pursue a withdrawal from locatable mineral entry; 5) an exclusion area for new ROWs; 6) closed to coal and sodium exploration.

Herita	Heritage and Visual Resources (HR) – Specific Cultural Resources (5100–5114)		
MA #	Goal/Obj.	Approved RMP ¹	
5102	HR-09, HR-02, HR-15	The Eden-Farson, Finley, Krmpotich, and Morgan archaeological sites, and similar sites identified in the future, will be managed to protect their important scientific values. No public interpretive efforts will be initiated at these sites. Periodic law enforcement patrol and other efforts will be instituted to ensure that the ARPA is enforced and that these sites are protected.	
5103	HR-09, HR-16	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 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 on any burial location.	
5104	HR-09, SD-02, HR-2.1	Any burial located in the future will be managed with the same prescriptions as known burial sites. 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. CSU for fluid minerals. Petition to segregate and pursue withdrawal from mineral location.	
5105	HR-09, SD-01, SD-02	Consider acquisition on a willing seller basis of the Dry Sandy Stage Station, LaClede Stage Station (formerly known as Fort LaClede), Big Pond Stage Station, Sulphur Springs Register, and Point of Rocks Stage Station to enhance BLM management of important historic resources.	
5106	SD-22, SD-03	 The Crookston Ranch site, approximately 40 acres: NSO for fluid minerals. Petition to segregate and pursue withdrawal from mineral location. Close to mineral material sales. Close to solid mineral leasing. Designate as a ROW exclusion area. Prohibit geophysical activities such as shothole, blasting, and vibroseis locations within ¼ mile from the site. Allow geophysical activities outside of ¼ mile only after a site-specific analysis determines that visual intrusions and adverse effects would not occur. 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. 	
5107	SD-22, SD-03	Suppress all fires within ¹ / ₄ mile of the Crookston Ranch site.	

Heritage and Visual Resources (HR) – Specific Cultural Resources (5100–5114)			
MA #	Goal/Obj.	Approved RMP ¹	
5108	SD-22, SD-03	Pine Springs (90 acres) will be managed to protect the natural and cultural values in the area.	
5109	SD-22, SD-03	Prohibit surface-disturbing activities in Pine Springs (90 acres).	
		NSO for fluid minerals	
		Retain the withdrawal from mineral location	
		Close to mineral material sales	
		Designate as a ROW avoidance area.	
5110	SD-22, SD-03	Close Pine Springs to all geophysical operations and to the use of blasting and explosives.	
5111	SD-22, SD-03	Designate Pine Springs as VRM Class II.	
West S	West Sand Dunes Archaeological District		
Goal:			
SD-04:	SD-04: Manage for protection cultural resources for scientific study, education, and interpretation.		
5112	SD-04, HR-02, HR-05	The West Sand Dunes Archaeological District is not designated as a special management area. Rename the area as the West Sand Dunes Paleosol Deposition Area.	
5113	SD-04, HR-02, HR-05	Apply the following prescriptions to the West Sand Dunes Paleosol Deposition Area:	
		• Require heritage resource inventories in this area to include analysis of subsurface deposits to ascertain whether they include important archaeological materials.	
		• Require subsurface inventory using remote sensing techniques, hand-dug test excavations, and/or mechanical testing prior to issuing any surface-disturbing authorizations in the West Sand Dunes Paleosol Deposition Area.	
5114	HR-09, HR-04	The Krmpotich site will be nominated to the NRHP under the NRHP's Earliest Americans context.	

Herita	Heritage and Visual Resources (HR) – Sacred, Spiritual and/or Traditional Cultural Properties (5200)		
MA #	Goal/Obj.	Approved RMP ¹	
Goals:			
HR-14:	Maintain existing and esta	blish new working relationships with Native American Tribes for purposes of advancing the protection of cultural resources.	
HR-15: informa	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 c	ultural remains and natural settings of Sacred, Spiritual, and/or Traditional Cultural Properties (TCP).	
5200	HR-15, HR-16	Consult with Tribal leaders, SHPO, and the activity proponent when an activity is proposed within 3 miles of TCPs, sacred sites, and/or respected places and based on the characteristics of the site and the proposed activity.	
		Mitigation could include siting activity in such a way as to protect the setting of the area of concern, if appropriate.	
		Areas located on Steamboat Mountain, Steamboat Rim, White Mountain Rim, Essex Mountain, Monument Ridge, Joe Hay Rim, Pine Spring, Aspen Mountain and the Indian Gap Trail have been identified as respected places.	

Heritage and Visual Resources (HR) – Paleontological Resources (5300–5307)		
MA #	Goal/Obj.	Approved RMP ¹
Goals:		
HR-17:	Manage, preserve, and pro	tect paleontological resources and areas on BLM-administered land in the planning area.
HR-18:	Reduce threats to paleonto	logical resources from natural or human-caused deterioration.
HR-19:	Promote and enhance scie	ntific and educational knowledge of paleontological resources in the planning area.
HR-20: State O	Provide paleontological re ffice Paleontologist, imple	search opportunities for qualified scientists/academia on public lands within the planning area in conjunction with the Wyoming menting the paleontology permitting program.
HR-21:	Provide opportunities for t	he 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 st	ewardship, 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.		
HR-25: Resolve conflicts between paleontological resources and other resource uses.		
5300	HR-17, HR-23	Require the Potential Fossil Yield Classification as a standard part of review for all surface-disturbing activities.
5301	HR-17, HR-23	Identify and mitigate, on a case-by-case basis, threats to paleontological resources.
5302	HR-17, HR-23	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.
5300 5301 5302	HR-17, HR-23 HR-17, HR-23 HR-17, HR-23	Require the Potential Fossil Yield Classification as a standard part of review for all surface-disturbing activities. Identify and mitigate, on a case-by-case basis, threats to paleontological resources. Manage significant paleontological resources for their scientific and educational values and in accordance with 43 CFR 36 CFR 3622, and 43 CFR 8365, and other applicable laws and regulations.

Herit	Heritage and Visual Resources (HR) – Paleontological Resources (5300–5307)			
MA #	Goal/Obj.	Approved RMP ¹		
5303	HR-17, HR-23	Allow collecting of significant paleontological resources with written authorization only to academic, scientific, governmental, or other qualified individual. Allow collection of common invertebrate or plant fossils for hobby purposes on public lands as regulated under 43 CFR 8365. A site protection plan could be written and implemented for 18-mile canyon.		
5304	HR-17, HR-23	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-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.		
5305	HR-17, HR-23	Provide paleontological research opportunities for qualified scientists/academia on BLM-administered land within the planning area in conjunction with the Wyoming State Office Paleontologist, and the BLM's paleontology permitting program. The BLM will actively solicit paleontological research.		
5306	HR-17, HR-23	Avoid documented significant fossil sites to protect scientific and educational values. Apply management guidelines included in BLM Handbook 8270-1.		
		If impacts are unavoidable, a BLM-permitted paleontologist would evaluate the site (a paleontological survey may also be required) and would coordinate with the BLM in developing a mitigation plan. The mitigation plan could include activity monitoring, fossil documentation, recovery, and storage in a federally approved repository.		
5307	HR-17, HR-23	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.		
		Designate as a ROW avoidance area.		
		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.		

Herita	Heritage and Visual Resources (HR) – Visual Resources (5400–5404)		
MA #	Goal/Obj.	Approved RMP ¹	
Goal: HR-26: values.	Maintain or improve over	all visual values and scenic quality and establish priorities for managing the visual resources in conjunction with other resource	
5400	HR-02, HR-11, HR-04	Designate VRM classifications as shown in Table 2-9, Appendix O and Map 2-25.	
5401	HR-02, HR-11, HR-04	Design and locate all surface-disturbing actions in a manner that most closely meets the minimum degree of contrast acceptable for the VRM classes and could require mitigation. Design projects and facilities to meet the objectives of the established visual classifications and include appropriate mitigation.	

Heritage and Visual Resources (HR) – Visual Resources (5400–5404)		
MA #	Goal/Obj.	Approved RMP ¹
5402	HR-02, HR-11, HR-04	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.
5403	HR-02, HR-11, HR-04	Visual simulations will be required consistent with Manual 8431.
5404	HR-02, HR-11, HR-04	Allow the construction and placement of the Gateway West Transmission Line on public land classified as VRM Class II in section 10, T. 20 N., R. 109 W.

Land Resources (LR) – Lands and Realty (6000–6011)			
MA #	Goal/Obj.	Approved RMP ¹	
Goals:			
LR-01:	Manage the acquisition, di	sposal, withdrawal, and use of public lands to meet the needs of internal and external customers (e.g., to respond to community	
needs for	or expansion and economic	e development and to preserve important resource values).	
LR-02:	Improve efficiency of man	agement in areas of scattered or intermingled land ownerships patterns.	
LR-03:	Review and evaluate the n	eed and merits of current and proposed withdrawals.	
LR-04:	Identify BLM administere	d lands within the planning area for acquisition, disposal, or withdrawal.	
6000	LR-06, LR-07, LR-02, BR-24	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 J).	
6001	PR-01, PR-02, PR-03	Allow geologic carbon sequestration exploration and site characterization projects and commercial sequestration projects and facilities.	
6002	LR-06, MR-03	The planning area is open to the consideration of granting lands/realty actions, except where identified.	
6003	LR-06, BR-46, BR-35	Stipulate pipeline trenches are not allowed open longer than 10 days during the construction phase.	
		Require pipeline gates to mitigate impacts on livestock, wildlife and public safety.	
6004	LR-06	Remove abandoned pipelines that are exposed or have come to the surface and that present a public safety hazard.	
Withd	Withdrawals and Classifications		
6005	LR-03	Withdrawals for Public Water Reserves would be revoked where no longer needed and pursued where the need exists.	
6006	LR-03, LR-01, PR-07	The BLM Rock Springs Administrative Site withdrawal would be retained (Appendix J).	
6007	LR-01, LR-03, LR-04, BR-24, HR-2.1	Process land withdrawals identified in Table 2-3, Appendix O.	

Land	Land Resources (LR) – Lands and Realty (6000–6011)			
MA #	Goal/Obj.	Approved RMP ¹		
6008	LR-03, BR-20, HR-13	Revoke withdrawals which no longer serve the purpose for which they were established (Appendix J). 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.		
Land 7	Fenure Adjustments			
6009	PR-07, BR-05, LR-04	No BLM-administered public lands within the planning area are available for agricultural entry under Desert Land Entry (43 CFR 2520).		
6010	LR-01	Retain public lands in Federal ownership except for those lands which have potential for disposal. Lands currently identified as meeting the FLPMA disposal criteria are described in Appendix J. Other lands would be considered for disposal and must conform to the disposal criteria for exchange or sale as described in Appendix J. Land exchange is the preferred method of disposal.		
6011	LR-01, LR-04, PR-06	Consider acquisition of lands to facilitate various resource management objectives. Land exchanges would be considered discretionary and voluntary real estate transactions between parties involved. Refer to Appendix J for lands considered for acquisition. Land exchange is the preferred method for acquisition.		

Land Resources (LR) – Renewable Energy (6100–6108)			
MA #	Goal/Obj.	Approved RMP ¹	
Goal:			
LR-05:	Provide opportunities for a	assessment and development of renewable energy facilities on public lands.	
6100	LR-05	In cooperation with project proponents, promote and enhance scientific knowledge of renewable energy resources in the planning area.	
6101	LR-05	Coordinate with local, State, and Federal agencies in the development of renewable energy resources.	
6102	LR-05	Programmatic policies and BMPs for wind-energy development are identified in the ROD for <i>Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments</i> (BLM 2005d), IM 2009-043, and 43 CFR 2800–2809.	
6103	LR-05	Renewable energy development would follow the BMPs specified in the Appendix A. Additional measures and BMPs could be identified and required to protect resources and resource uses.	
6104	LR-05, SR-01, PR-01, BR-24	Consider the authorization of renewable energy projects consistent with the management of other resource values and uses.	

Land	Land Resources (LR) – Renewable Energy (6100–6108)		
MA #	Goal/Obj.	Approved RMP ¹	
6105	LR-05, SR-01, PR-01, BR-24	The planning area is open to renewable energy development unless managed as renewable energy or ROW exclusion or avoidance areas to meet other resource objectives (Table 2-10, Appendix O; Map 2-30). See management action 2203 Geothermal resources are discussed in the fluid minerals section.	
		See management action 2100–2101	
6106	_	The Sweetwater County Growth Management Area is designated a ROW exclusion area for wind energy developments. See management actions 2202, 2402, and 2416	
6107	LR-05 MR-01	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 actions 2406–2408	
6108	LR-05	Programmatic policies and BMPs for solar energy development as identified in the Approved RMP/ROD for Solar Energy Development in Six Southwestern States (BLM 2012b) would be considered on a case-by-case basis.	

Land	Land Resources (LR) – Rights-of-Way and Corridors (6200–6207)		
MA #	Goal/Obj.	Approved RMP ¹	
Goal: LR-06: plans a:	Manage public lands to m nd policies.	eet transportation and ROW needs consistent with Goals and objectives of other resources while supporting the national energy	
6200	LR-06, LR-07	Maintain a transportation management system in cooperation with appropriate State and local agencies and governments to meet public and resource management needs.	
6201	LR-06, MR-03	The planning area is open to consideration of granting ROWs with the exception of defined exclusion and avoidance areas (see Map 2-30).	
6202	LR-06	The Aspen Mountain Communications Site Plan will govern development of sites at this location (Appendix L).	
6203	LR-06, SR-01	Communication sites at other locations would be approved on a case-by-case basis. Sharing of sites would be advocated, where possible	
6204	LR-06, SR-01, HR-02	Retain the preferred corridors identified in the West-wide Energy Corridor Approved RMP Amendment/ROD (2009) (Map 2- 30). Restrict corridor widths to 3,500 feet wide, or consistent with RMPs for other field offices.	
6205	LR-06, HR-11	Close the utility window located in the Little Mountain ACEC.	

Land Resources (LR) – Rights-of-Way and Corridors (6200–6207)		
MA #	Goal/Obj.	Approved RMP ¹
6206	LR-06, SD-37, BR-24	Locate pipelines, power lines and other utilities adjacent to or co-located within existing ROWs to reduce new surface disturbance.
6207	LR-06, MR-03	Designate new ROW corridor (Wyoming Pipeline Corridor Initiative) as shown on Map 2-30.

Land Resources (LR) – Back Country Byways (6300–6305) Goal/Obj. Approved RMP¹ MA # Goal: LR-07: Promote the increased awareness of the historical and cultural values and facilitate a sense of stewardship within the back country byways. 6300 LR-07, LR-14, LR-02 Manage National Back Country Byways and All-American Roads to enhance opportunities for the public to experience and enjoy public lands (Map 3-19). LR-14, LR-02 6301 Identify scenic or back country byways and develop management prescriptions to maintain resource values. Through cooperative relationships with volunteer groups, landowners, other agencies, and other interested stakeholders. LR-087 LR-14. LR-02 6302 showcase landscapes, their scenic qualities, multiple uses, and unique character through interpretation. 6303 LR-07, LR-14, LR-02 Retain the Pilot Butte Loop Back Country Byway. Retain the Tri-Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Firehole-Little Mountain Loop Back 6304 LR-07, LR-14, LR-02 Country Byways. Consider additional back country byways. Designate, on a case-by-case basis, additional travel routes that meet the criteria for designation as back country byways. 6305 LR-07, LR-14, LR-02

Land Resources (LR) – Livestock Grazing Management (6400–6413)			
MA #	Goal/Obj.	Approved RMP ¹	
Goal:			
LR-08: 1	Maintain, restore, or enhan	ce livestock grazing opportunities while meeting or making significant progress towards meeting the Wyoming Land Health	
Standard	s, and achieve allotment of	bjectives.	
6400	LR-08, BR-05, BR-09	Provide, maintain, and improve opportunities for livestock grazing while meeting or making significant progress toward meeting the Wyoming Land Health Standards.	
6401	LR-08, BR-05, BR-09	Use livestock grazing systems and management techniques to maintain or enhance land health; improve forage for livestock, wild horses and wildlife; and meet other multiple-use objectives. Use the Wyoming Guidelines for Livestock Grazing Management and other appropriate BMPs in designing and implementing livestock grazing systems and management.	

Land I	Land Resources (LR) – Livestock Grazing Management (6400–6413)		
MA #	Goal/Obj.	Approved RMP ¹	
6402	LR-08, BR-10, BR-09	Adjust livestock grazing use when land health assessments, evaluations, monitoring data, or other acceptable scientific analysis demonstrates that changes in grazing management are needed and appropriate. Adjustments in livestock grazing may include changes in the number of livestock, the kind of livestock, the season-of-use (timing and duration), or the grazing system utilized (such as rotation system).	
6403	LR-08, BR-05, BR-09	Identify and implement range and vegetation improvement projects to maintain, restore, and enhance livestock grazing and/or fulfill or make significant progress toward meeting the Wyoming Land Health Standards in cooperation, consultation, and coordination with the grazing permittees and the interested public.	
6404	LR-08, BR-09, BR-05	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, see Section 3.16 of the Final EIS). 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 toward meeting the Wyoming Land Health Standards and to	
		meet the goals and objectives of the RMP.	
6405	LR-08	Close the Pine Creek Special Status Plant Exclosure (small rockcress, <i>Arabis pusilla</i>) (583 acres) to livestock grazing. Close the McKinnon Special Status Plant Exclosure (precocious milkvetch, <i>Astragalus proimanthus</i>) (121 acres) to livestock grazing. Close the Palmer Draw Exclosure (1,608 acres) to livestock grazing.	
		Close all other livestock exclosures within the planning area to livestock grazing, unless a site-specific analysis indicates grazing could be used to achieve exclosure goals and objectives.	
		Establish new exclosures only when site-specific analysis demonstrates that doing so would help meet resource objectives. If the exclosure is of a sufficient size, consider adjusting livestock AUMs in accordance with management action 6404.	
		Remove exclosures when site-specific analysis determines they no longer serve their purpose. Once removed, the area would be available for livestock grazing.	
6406	LR-12, LR-10, LR-08	All developed and some semi-developed recreation areas are closed to livestock grazing and would be fenced to reduce conflicts between uses.	
6407	LR-08, BR-05, BR-09	Management would be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soil resource conditions. Management in "M" category allotments would be directed toward maintenance of resource conditions. Management in "C" category allotments would be directed toward monitoring resource conditions.	

Land 1	Land Resources (LR) – Livestock Grazing Management (6400–6413)		
MA #	Goal/Obj.	Approved RMP ¹	
6408	LR-08, BR-10, BR-15	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.	
6409	LR-08	Authorize livestock trailing, on a case-by-case basis, based on appropriate, site-specific NEPA compliance.	
6410	LR-08	Incorporate adaptive management and collaboration with interested parties, including livestock operators, to examine the effects of intense industrial operations on access to and availability of the forage base.	
		Reasonable and prudent mitigation will be implemented to maintain the availability of public lands for authorized livestock grazing use.	
		Reductions in grazing use in industrialized areas could become necessary if mitigation is insufficient to maintain the current level of livestock grazing.	
		Reductions could be temporary in nature, with AUMs restored to affected permittees.	
6411	LR-08	Authorize livestock conversions only after completing a site-specific NEPA analysis that considers rangeland suitability for the desired kind and class of livestock (e.g., forage value, terrain, water source limitations, adequate infrastructure).	
6412	LR-08	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.	
6413	LR-08	Implementation of grazing management systems will assist in improving or maintaining the desired range condition. Approved allotment management plans, or other activity plans intended to serve as the functional equivalent to an allotment management plan, for each of the designated grazing allotments will provide the necessary guidance for achieving grazing management objectives.	
		Appropriate actions for improving degraded rangeland and riparian habitat (i.e., meeting Wyoming Standards for Healthy Rangelands [BLM 1997b]) include, but will not be limited to, reduction of permitted AUM, modified turnout dates, livestock water developments, range improvements, modified grazing periods, growing season rest, riparian pastures, exclosures, implementation of forage utilization levels, and livestock conversions. These improvements will be considered individually using the method outlined in Appendix 2 of the JMH CAP ROD to ensure conformance with management objectives for the planning area and other resource values.	

Land Resources (LR) – Recreation (6500–6535)		
MA #	Goal/Obj.	Approved RMP ¹
Goals:		
LR-09: Ensure	the continued availabil	ity of outdoor recreational opportunities sought by the public while protecting other resources.
LR-10: Maintai	n or enhance the health	n and viability of recreation opportunities dependent on natural resources and settings within the planning area.
LR-11: Provide	an array of resource-d	ependent dispersed recreation opportunities such as hunting, fishing, camping, motorized use, and open space.
LR-12: Minimi	ze conflicts between re	creation and other types of resource uses.
6500	LR-09, LR-10, LR- 11	Allow commercial competitive events and organized group activities, on a case-by-case basis, where compatible with natural resource management objectives.
6501	LR-09, LR-10, LR- 11	Manage SRMAs to provide for current and future recreation opportunities.
6502	LR-09, LR-10, LR- 11	Meet requirements for the health and safety of visitors.
6503	LR-09, LR-10, LR- 11	Consider special recreation permits on a case-by-case basis.
6504	LR-09, LR-10, LR- 11	Manage undeveloped recreation with priority consideration for other resource values.
6505	LR-09, LR-10, LR-	Allow overnight camping throughout the planning area, including WSAs, in accordance with BLM guidelines.
	11	Prohibit camping within 50 feet of riparian areas or surface water.
		Close areas to camping if resource damage occurs. Camping will be allowed once the resource damage has been corrected.
6506	LR-09, LR-10, LR- 11	Cutting of downed, dead trees for firewood for camping purposes in developed recreation sites is not limited to designated areas.
6507	BR-01, BR-03, LR- 09	Limit cutting of firewood for camping purposes outside of developed recreation sites to downed, dead trees.
6508	LR-09, LR-10, LR- 11	Manage recreation site development projects and access routes along streams and reservoirs to maintain or improve wetland habitat conditions.
6509	LR-09, LR-10, LR- 11	Consider development of permanent recreation sites and facilities in undeveloped recreation use areas, provided proper mitigation and exceptions to EO 11988 apply.
		Prohibit recreation site facilities within 500 feet of riparian areas. Prohibit adverse impacts on water quality.
		Monitor water sources at undeveloped recreation sites.
		Post signs if the water is not potable.
		Maintain or improve buffer strips of native vegetation sufficient to protect surface water between developed recreational facilities and surface water.

Land Resources (LR) – Recreation (6500–6535)		
MA #	Goal/Obj.	Approved RMP ¹
6510	LR-09, LR-10, LR- 11	Allow surface-disturbing activities within ¹ / ₄ 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. Manage as an NSO for fluid minerals.
6511	LR-09, LR-10, LR- 11	Restrict geophysical activity in developed and semi-developed recreation sites.
6512	LR-09, LR-10, LR- 11	Suitable wild horse herd viewing area(s) may be developed to enhance public viewing of horses. Viewing areas plus a ½-mile distance surrounding them are closed to long-term or permanent intrusions and surface-disturbing activities that could interfere with opportunities to view horses (e.g., structures, mineral activities, power lines, roads). Short-term intrusions within the ½-mile distance and actions that will blend with the landscape or will benefit the intent of the wild horse herd viewing areas will be considered on a case-by-case basis.
6513	LR-09, LR-10, LR- 11	Allow recreational activities involving gold panning or casual use relating to prospecting and other similar activity in those parts of the planning area that are not withdrawn from mineral location or where such withdrawals would not be pursued.
Special Recrea	ntion Management Ar	eas ⁵
6514	LR-09, LR-10, LR- 11	See the following actions for specific SRMA designations.
Continental D	ivide Snowmobile Tra	il Special Recreation Management Area
6515	LR-09, LR-10, LR- 11	The Continental Divide Snowmobile Trail is designated a SRMA 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 O and Map 2-40). A management plan for the Continental Divide Snowmobile Trail will be developed.
6516	LR-09, LR-10, LR- 11	The integrity of the Continental Divide Snowmobile Trail and the South Pass Cross Country Ski Trail will 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.
6517	LR-09, LR-10, LR- 11	The integrity of the Continental Divide Snowmobile Trail will be maintained to allow for continued snow machine use. The trail system may be expanded by adding loop trails. Maintaining trail integrity will be accomplished by limiting surface-disturbing activities, structures, or facilities that block or hinder trail use on or within ¹ / ₄ 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.

⁵ Under BLM Land Use Planning Handbook (H-1601-1) Appendix B, SRMAs are defined as a resource use. Under this definition, the designation of a SRMA was placed in Alternative C, the resource use alternative, because it encouraged recreation use of the resources and not designating a SRMA was placed in Alternative B, the resource conservation alternative, because it did not encourage recreation use of the resources.

Land Resources (LR) – Recreation (6500–6535)		
MA #	Goal/Obj.	Approved RMP ¹
Continental Di	vide National Scenic '	Trail Special Recreation Management Area
6518	LR-09, LR-10, LR- 11	Retain the Continental Divide National Scenic Trail SRMA (Appendix N). See the Congressionally Designated Trails Section (7000–7016).
Killpecker San	d Dunes Special Recr	reation Management Area
6519	LR-09, LR-10, LR- 11	Reduce the size of the Killpecker Sand Dunes SRMA to only include the OHV Open Play Area (12,802 acres, Table 2-12, Appendix O and Map 2-40). Manage for motorized recreationists to engage in OHV, motorbike, and other motorized hill climbing activities in these front country settings.
6520	LR-09, LR-10, LR- 11	Reduce the boundary as shown on Map 2-40.
6521	LR-09, LR-10, LR- 11	Designate as a ROW avoidance area.
6522	LR-09, LR-10, LR- 11	 Allow surface-disturbing activities only if the purpose of the activity is to benefit the resource objectives. Petition to segregate and pursue withdrawal from mineral location. Close to mineral material sales. Prohibit geophysical activities such as shothole, blasting, and vibroseis locations. Closed to fluid minerals. Closed to Oil Shale.
6523	LR-09, LR-10, LR- 11	Designate as VRM Class III.
Little Mountai	n Area Special Recre	ation Management Area
6524	LR-09, LR-10, LR- 11	Designate the Little Mountain Area as a SRMA (40,455 acres, Table 2-12, Appendix O and Map 2-40). Manage as a SRMA for motorized and non-motorized recreationists to engage in hiking, hunting, wildlife viewing, and nature viewing in the back country and middle country settings (Appendix N).
6525	_	Designate as VRM Class II.
Wind River Front Special Recreation Management Area		
6526	LR-09, LR-10, LR- 11	Reduce the size of the Wind River Front SRMA to only include the eastern unit (85,335 acres, Table 2-12, Appendix O, and Map 2-40). 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.

Land Resources (LR) – Recreation (6500–6535)		
MA #	Goal/Obj.	Approved RMP ¹
Eastern Unit		
6527	LR-09, LR-10, LR- 11	Allow facilities, on a case-by-case basis, if analysis indicates the management objectives for the unit could be met.
6528	LR-09, LR-10, LR- 11	Closed to fluid minerals Closed to coal leasing
6529	LR-09, LR-10, LR- 11	Petition to segregate and pursue withdrawal from mineral location for the Sweetwater Bridge and Guard Station campgrounds.
6530	LR-09, LR-10, LR- 11	Additional withdrawals may be pursued in the unit to meet unit management objectives, if necessary.
6531	LR-09, LR-10, LR- 11	The Sweetwater Bridge and Guard Station Campgrounds will be upgraded to better provide for public health and safety, reduce natural resource degradation, and to meet BLM accessibility standards.
6532	LR-09, LR-10, LR- 11	Designate this area as VRM Class II objectives.
6533	LR-09, LR-10, LR- 11	Manage as ROW avoidance area.
Western Unit		
6534	LR-09, LR-10, LR- 11	Design any facility placement for minimum surface disturbance, unless a site-specific analysis determines that additional activity can occur and unit management objectives can be met.
6535	LR-09, LR-10, LR- 11	Designate this area as VRM Class II, III and IV objectives (Map 2-25).

Land I	Land Resources (LR) – Off-Highway Vehicles (6600–6609)			
MA #	Goal/Obj.	Approved RMP ¹		
Goals:				
LR-13: I	Protect public lands and res	sources while providing opportunities for the safe use and enjoyment of OHVs.		
LR-14: A the plan	Assess current and future C ning area transportation pla	OHV use (e.g., oil, gas, mining and agriculture) and demand, and plan for and balance the demand for OHV use when developing an.		
LR-15: I	ntegrate concepts of habita	at connectivity into OHV planning to minimize habitat fragmentation.		
LR-16: U	Use high-use areas and spe	cial events to maximize the dissemination of responsible-use education materials and concepts to the public.		
6600	LR-13, LR-14, LR-06	Manage the use of OHVs in partnership with other land-managing agencies, local governments, communities, permittees, private landowners, and interest groups through a balanced approach.		
6601	LR-13, LR-14, LR-06	Engineer, locate, or relocate roads and trails to accommodate OHV activities while minimizing resource impacts.		
6602	LR-13, LR-14, LR-06	Manage OHV use by type, season, intensity, distribution, and (or) duration to minimize the impact on plant and wildlife habitats. If seasonal closures become appropriate to minimize adverse OHV impact(s) on public lands resources, strive to preserve public access by designating alternative routes.		
6603	LR-13, LR-14, LR-06	Clearly identify route and area designations as open, closed, or limited to OHV use.		
6604	LR-13, LR-14, LR-06	Maintain an inventory of existing road and trail systems.		
6605	LR-13, LR-14, LR-06	Cooperatively develop and improve public outreach programs to promote trail etiquette, environmental ethics, and a responsible- use stewardship ethic (e.g., tread lightly, leave no trace).		
6606	LR-13, LR-14, LR-06	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.		
6607	LR-13, LR-14, LR-06	Manage OHV area designations as shown on Map 2-35 (12,831 acres Open; 225,890 acres Closed; 3,367,223 acres Limited to Designated Roads and Trails).		
6608	LR-13, LR-14, LR-06	Permit, on a case-by-case basis, organized OHV events.		
6609	LR-13, LR-14, LR-06	Allow over-the-snow vehicles if snow depth is adequate to cover vegetation. Restrict over-the-snow vehicles in areas of snow depth that is not adequate to cover vegetation. Temporarily close areas to over-the-snow vehicles, if winter conditions warrant, in order to reduce stress to wildlife and other sensitive resources. BLM over-the-snow restrictions do not apply to county roads, permitted uses, and administrative uses.		

Special Designations (SD) – Congressionally Designated Trails (7000–7016)			
MA #	Goal/Obj.	Approved RMP ¹	
Goals: SD-01 Expres SD-02 congre Expans	Preserve and protect the h s) and NHT-related resour Preserve and protect the h ssionally designated. These sion Era Roads.	historical remains and historical settings of congressionally designated NHTs (e.g., Oregon, California, Mormon-Pioneer, and Pony ces (e.g., camps, graves, inscription sites, stations, natural landmarks). historical remains and historical settings, if appropriate, of other trails and roads that are eligible for the NRHP but are not e roads and trails include, but are not limited to, the Overland Trail, the Cherokee Trail, the Point of Rocks to South Pass Road, and	
7000	_	Establish appropriate management prescriptions for the NHTs.	
7001	-	Coordinate with recreation and other programs to provide opportunities for public visitation, interpretation, education, and appreciation of NHTs.	
Nation	al Historic and Scenic Ti	rails	
7002	SD-01, HR-11	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 is reduced to ¼ mile on either side of NHT ruts and swales. The area within ¼ mile on either side of a NHT is closed to Oil Shale.	
7003	SD-01, HR-11	 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 is closed to Oil Shale. Surface-disturbing activities are 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 on 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 on the National Historic and Scenic Trails. Allow new surface-disturbing activities only if they will not cause an adverse effect on the National Historic and Scenic Trails. 	

Specia	al Designations (SD) -	- Congressionally Designated Trails (7000–7016)
MA #	Goal/Obj.	Approved RMP ¹
7004	SD-01, HR-11, HR-10	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.
7005	SD-01, HR-11, HR-10	Allow highly visible projects and/or projects out of scale with the surrounding environment (e.g., wind energy development projects, gas plants, power plants, high voltage transmission lines) that are outside of 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.
7006	SD-01, LR-06, HR-11	Allow National Historic and Scenic Trails crossings by new major utility systems only in designated ROW corridors identified in the Rights-of-Way and Corridors section.
7007	SD-01, HR-11	Prohibit large, heavy vehicles (e.g., geophysical, tour buses or similar size vehicles) from driving on contributing segments of the NHTs.
7008	SD-01, HR-11	Allow geophysical activities such as shotholes, blasting, and vibroseis in the National Trail Management Corridor only if the impacts will not be visible from National Scenic Trails and contributing portions of the NHTs and will not cause an adverse effect on the trails.
7009	SD-01, HR-11	Prohibit blading on any contributing segment of NHTs, unless necessary to protect life or property.
7010	SD-01, HR-11	National Scenic Trails and contributing segments of NHTs will 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.
7011		Venicles could cross the trails, provided a site-specific analysis determines that no adverse effects would occur.
/011	SD-01, HK-11, HK-12	Retain the existing 40-acre withdrawal. NSO for fluid minerals.
7012	SD-01, HR-11	Subject projects creating new audible and atmospheric effects on NHTs to measures in the NHPA to avoid, minimize or mitigate those effects.
7013	SD-01, HR-11	The integrity of the Dry Sandy Swales trail segment (about 1 mile) will be protected. The site will be an exclusion area and will be closed to surface-disturbing activities that could adversely affect it (see discussions in Lands and Realty Management and Minerals Management).
7014	SD-01, HR-11	The area within ¹ / ₄ mile of either side of the Dry Sandy Swales trail segment will be managed in accordance with the Oregon/Mormon Pioneer National Historic Trails Management Plan.

Specia	Special Designations (SD) – Congressionally Designated Trails (7000–7016)		
MA #	Goal/Obj.	Approved RMP ¹	
Eligible	e But Not Designated		
7015	SD-02, HR-09	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 fillinerals Designate as a ROW avoidance area 	
		For most projects, the setting will be analyzed out to 1 mile on either side of contributing segments of the historic roads and trails. For highly visible projects, impacts on 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.	
7016	SD-02, HR-09	 Allow geophysical activities such as shotholes, blasting, and vibroseis locations provided they are: At least 300 feet from an NRHP eligible historic road or trail Do not occur directly on the historic road A site-specific analysis determines that visual intrusions and adverse effects would not occur 	

Specia	Special Designations (SD) – Wilderness Study Areas (7100–7102)			
MA #	Goal/Obj.	Approved RMP ¹		
7100	_	Retain the wilderness quality and manage the WSAs in the planning area in accordance with general BLM Management authorities found in FLPMA, 43 U.S.C. 1701 and associated regulations and policies, including applicable land use plans.		
7101	_	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 U.S.C. 1701 and associated regulations and policies, including applicable land use plans.		
7102	_	Designate WSAs as VRM Class I areas (227,960 acres) to preserve the natural setting and existing character of the landscape.		

Special Designations (SD) – Congressionally Designated Trails (7000–7016)

Specia	al Designations (SD) -	- Wild and Scenic Rivers (7200–7216)
MA #	Goal/Obj.	Approved RMP ¹
7200	SR-01	Manage the free-flowing condition, water quality, tentative classification, and outstandingly remarkable values of eligible and suitable WSR to ensure a decision on suitability can be made for eligible rivers; or in the case of suitable rivers, until Congress designates the river or releases it for other uses.
7201	SR-01	Protect outstanding remarkable values of eligible and suitable WSR segments.
7202	SR-01	Seven BLM-administered public land parcels along the Sweetwater River (involving about 9.7 miles of the river) were found to meet the WSR suitability factors to be given further consideration for inclusion in the WSR System. Of the 9.7 miles of river involved, classify the BLM lands along 5.8 miles as wild, ½ mile as scenic, and 3.4 miles as recreational (Map 2-40) (see Appendix K).
7203	SD-11, SR-01	All Classifications/Tentative Classifications:
		Within ¹ / ₂ mile of either side of the river bank:
		• Designate as a ROW exclusion area
		Manage surface-disturbing activities to maintain the WSRs
		CSU for fluid minerals
		Close to mineral material sales
		Retain the existing withdrawal from mineral location.
7204	SD-11, SR-01	All Classifications:
		Prohibit land disposal actions.
7205	SD-11, SR-01	Designate this area as VRM Class II objectives.
Wild C	lassification	
7206	SD-11, SR-01	Limit geophysical exploration to foot access and use of surface cables on the public lands. Prohibit use of motorized or non- motorized vehicles.
7207	SD-11, SR-01	Limit motorized and non-motorized vehicles, including those used for fire suppression, to designated roads.
7208	SD-11, SR-01	Prohibit commercial timber sales and harvesting.
Scenic	Classification	
7209	SD-11, SR-01	Focus interim management on BLM-administered public land parcels Identified as Potentially Meeting the Scenic Classification (involving ½ mile of river) on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values and the relatively unmodified character of the area in a near-natural setting.
7210	SD-11, SR-01	Limit geophysical exploration to foot access and use of surface cables on the public lands. Prohibit use of motorized or non- motorized vehicles

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Specia	Special Designations (SD) – Wild and Scenic Rivers (7200–7216)			
MA #	Goal/Obj.	Approved RMP ¹		
7211	SD-11, SR-01	Limit motorized and non-motorized vehicles, including those used for fire suppression, to designated roads.		
7212	SD-11, SR-01	Prohibit commercial timber sales and harvesting.		
Recrea	Recreational Classification			
7213	SD-11, SR-01	Focus interim management on BLM-administered public land parcels identified as Potentially Meeting the Recreational Classification (involving 3.4 miles of river) on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values in a modestly modified setting and retain the character of the area. Prohibit any activities that would conflict with this objective.		
7214	SD-11, SR-01	Limit geophysical exploration to foot access and use of surface cables on the public lands. Prohibit use of motorized or non- motorized vehicles.		
7215	SD-11, SR-01	Limit motorized and non-motorized vehicles, including those used for fire suppression, to designated roads.		
7216	SD-11, SR-01	Prohibit commercial timber sales and harvesting.		

Specia	Special Designations (SD) – Management Areas (7300–7321)		
MA #	Goal/Obj.	Approved RMP ¹	
7300	PR-06, PR-09, PR-11	Maintain or enhance the resource values and characteristics for which these areas were designated as special management areas.	
7301	PR-06, PR-09, PR-11	Ensure developments and activities conform with the concepts of open space.	
7302	PR-06, PR-09, PR-11	Allow, on a case-by-case basis, activities that conform to objectives for the management areas.	
7303	PR-06, PR-09, PR-11	Analyze any increase in vegetative production, and if feasible, prioritize it for watershed stabilization and improvement, and wildlife forage, before considering it for livestock.	
7304	PR-06, PR-09, PR-11	Restrict travel and transportation of heavy firefighting equipment to designated roads and trails. Allow heavy firefighting equipment off of designated road and trails for protection of life, property, and resource values.	

Special Designations (SD) – Management Areas (7300–7321)			
MA #	Goal/Obj.	Approved RMP ¹	
Goal: SD-03: qualitie Pine M	: Emphasize protection of es in the area. Jountain Management A	visual resources, watershed values, wildlife resources, and to provide large areas of unobstructed views for enjoyment of scenic	
7305	SR-01	The area is not designated as an ACEC but will be maintained as a geographic management unit. 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.	
7306	SR-01	The Pine Mountain area is an avoidance area for ROWs and surface-disturbing activities.	
7307	SR-01	Modify livestock and grazing objectives and management practices, on a case-by-case basis, to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Design grazing systems to achieve desired plant communities and PFC of watersheds.	
7308	SR-01	Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas apply (see Wildlife section and Appendix I). Exceptions to these restrictions may be approved if conditions and criteria described in Appendix B apply.	
7309	SR-01	The entire area is managed consistent with the Class III VRM classification.	
7310	SR-01	Provide onsite controls and facilities for recreation development only for the protection of resource values and the safety of the users.	
7311	SR-01	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 ensure 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 H).	
Sugarloaf Basin Management Area			
7312	SR-01	Retain the area as a management area (Table 2-12, Appendix O and Map 2-40).	
7313	SR-01	Designate as a ROW avoidance area outside of any designated ROW corridors (see Rights-of-Way and Corridors section).	

Specia	Special Designations (SD) – Management Areas (7300–7321)		
MA #	Goal/Obj.	Approved RMP ¹	
7314	SR-01	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.	
7315	SR-01	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 apply (see Wildlife section and Appendix I). Exceptions to this restriction may be approved if conditions and criteria described in Appendix B.	
7316	SR-01	Designate the area as VRM Class III objectives.	
7317	SR-01	Recreation developments will 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.	
Pinnac	les Geographic Area		
Goals:			
SD-04:	Manage to preserve the sce	enic, paleontological, and wildlife values of the area.	
SD-05:	Manage to preserve the va	lue of this unique geologic feature.	
7318	SD-04, SR-01	Designate the Pinnacles Geographic Area as the Pinnacles ACEC (Table 2-12, Appendix O and Map 2-40).	
7319	SD-04, SR-01	Manage as:	
		Closed to mineral material sales/disposal.	
		• Exclusion area for ROWs.	
		Pursue withdrawal from mineral location.	
		• Limit surface-disturbing activities to actions that would preserve or enhance the values of the area.	
Pinnac	les Geologic Feature		
Goal:			
SD-06:	Manage to preserve the va	lue of this unique geologic feature.	
7320	SD-04, SD-05, SR-01	Manage the Pinnacles Geologic Feature as a portion of the Pinnacles ACEC (Table 2-12, Appendix O and Map 2-40).	
7321	SD-04, SD-05, SR-01	Pursue a withdrawal for the Pinnacles ACEC.	

Special Designations (SD) – ACECs (7400–7506)			
MA #	Goal/Obj.	Approved RMP ¹	
Goal:			
SD-07: Pro	vide for appropriate inter	pretation of sites of high public interest.	
7400	SD-07	Protect and enhance the relevant and important values associated with ACECs.	
7401	SD-07	Allow, on a case-by-case basis, activities that conform to objectives for the ACECs.	
7402	SD-07	Analyze any increase in vegetative production, and if feasible, prioritize it for watershed stabilization and improvement, and wildlife forage, before considering it for livestock.	
7403	PR-06, PR-09, PR-11	Restrict travel and transportation of heavy firefighting equipment to designated roads and trails. Allow heavy firefighting equipment off of designated road and trails for protection of life, property, and resource values.	
Little Mou	intain ACEC		
Goals:			
SD-08: Res diversity an the Green F	store healthy watershed conditional abundance, and water of River.	ondition and sustain sound watershed and riparian values, including, but not limited to, improving channel stability, vegetation quality, including reducing sediment loads and improving water quality of all tributaries entering Flaming Gorge Reservoir and	
SD-09: Rep	pair, improve, or maintair	n Colorado River cutthroat trout habitat in Red, Currant, Trout, and Sage Creeks and their tributaries.	
SD-10: Pro	vide opportunities for dis	persed recreation uses in the area that are consistent with the primary watershed, riparian, and fisheries management objectives.	
SD-11: Alle skills.	SD-11: Allow the recreation user the opportunity to have a high degree of interaction with the natural environment, to have moderate challenge, and to use outdoor skills.		
SD-12: Ma	intain and protect import	ant wildlife habitat.	
SD-13: Pro	SD-13: Protect the scenic qualities of the area.		
SD-14: Reduce the amount of sediment being delivered to the Green River through Red Creek by reducing accelerated sheet, rill, gully, and channel erosion.			
SD-15: Protect and enhance Special Status plants and their habitats and other important plant communities.			
SD-16: Protect sensitive cultural and paleontological resources.			
7404	BR-17, BR-20, BR- 18	Adjust the northern boundary to exclude the checkerboard land from the ACEC (115,573 acres, Table 2-12, Appendix O, and Map 2-40).	
		The Greater Red Creek ACEC is renamed the Little Mountain ACEC.	
7405	BR-22.1, BR-31.1, BR-32	Manage the Sage Creek, Currant Creek, and Red Creek watersheds in support of watershed stability and Colorado River cutthroat trout habitat management objectives.	
		See management action 7404.	
7406	BR-16, BR-17, BR- 19	Management would include emphasis on maintaining or improving important wildlife habitat.	

Special Designations (SD) – ACECs (7400–7506)			
MA #	Goal/Obj.	Approved RMP ¹	
7407	BR-17, BR-20, BR- 24	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 management action 7404.	
7408	BR-16, BR-20, BR- 22	Evaluate livestock grazing objectives and management practices, and modify to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Design grazing systems to achieve desired plant communities and PFC of watersheds (upland and riparian) (Appendix-H). See management action 7404.	
7409	BR-02	Manage forested areas primarily toward meeting the riparian, watershed, and other objectives of the ACEC. See management action 7404.	
7410	BR-02, BR-06, BR- 24	Evaluate, on a case-by-case basis, fire management, suppression needs, and prescribed burning in timber stands to ensure timber stands are maintained in healthy condition and the "snow fence effect" is preserved. See management action 7404.	
7411	BR-24	Allow onsite recreation controls and facilities only for the protection of resource values and safety of the users. See management action 7404.	
Sage Creek	Sage Creek Portion of Little Mountain ACEC		
7412	BR-24	Designate the area as VRM Class II.	
7413	BR-16, BR-17, BR- 32	No similar action (see Livestock Grazing section)	
Currant Creek Portion of the Little Mountain ACEC			
7414	BR-17, BR-20, BR- 32	See management action 7407.	

Special Designations (SD) – ACECs (7400–7506)			
MA #	Goal/Obj.	Approved RMP ¹	
Red Creek	Portion of the Little M	ountain ACEC	
7415	BR-17, PR-09, PR-11	Allow activities such as the installation of structures designed to reduce sediment, siltation, or erosion, and the rerouting or maintenance of roads (including the installation of culverts and similar structures), to meet the area objectives and provide needed or improved access. See management action 7404.	
7416	BR-17, BR-31, BR- 15	Require the completion of a grazing management plan prior to any annual authorization for livestock use in the allotment. See management action 7404.	
Greater Sa	and Dunes ACEC		
Goal: SD-17: Protect the unusual geologic features associated with the sand dunes, Crookston Ranch, and the Boars Tusk; the biological interrelationships supported by the dunes, the dunal ponds, and a variety of recreation uses.			
7417	SD-17, SD-03	Retain the Western Portion of the Greater Sand Dunes ACEC (26,746 acres).	
7418	SD-17, SD-03	Designate VRM classifications as shown in Table 2-9, Appendix O and Map 2-25.	
7419	SD-17, SD-03	The BLM-administered public lands in the Greater Sand Dunes area and those within 1 mile or the visual horizon (whichever is closer) of the area are avoidance areas for new ROWs (approximately 50,260 acres).	
7420	SD-17, SD-03	The BLM-administered public lands in the area are closed to mineral material sales.	
7421	SD-17, SD-03	Approximately 9,840 acres of Federal coal lands in the area are closed to coal leasing and development by surface mining methods and related surface facilities and activities. This area is open to consideration for coal leasing by subsurface mining methods with placement of surface facilities extremely limited.	
7422	SD-17, SD-03	Manage to protect and improve the dunal ponds for bird, amphibian, and mammal habitat.	
Boars Tus	k Portion of the Greater	· Sand Dunes ACEC	
Goals:			
SD-18: Preserve the scenic, cultural, Native American, and wildlife values of the area.			
SD-19: Preserve the value of this unique geologic feature.			
7423	SD-17, SD-03	Retain Boars Tusk as part of the Greater Sand Dunes ACEC (Table 2-12, Appendix O and Map 2-40).	
7424	SD-17, SD-03	Designate the Boars Tusk portion of the 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.	

Special Designations (SD) – ACECs (7400–7506)		
MA #	Goal/Obj.	Approved RMP ¹
7425	SD-18, SD-19	For public safety, the Boars Tusk geologic feature and surrounding talus slopes (90 acres) could be fenced to discourage OHV use. Interpretation and visitor controls would be installed. Allow no facilities within the feature or on the talus slopes. Boars Tusk remains closed to climbing activities.
7426	SD-17, SD-03	Close and reclaim the road around the Boars Tusk geologic feature.
7427	SD-17, SD-03	Designate the area as VRM Class II objectives.
7428	SD-17, SD-03	Prohibit geophysical activity. OHV activity will be consistent with the transportation plan.
7429	SD-17, SD-03	The relatively pristine portion of the eastern area that has no developments (approximately 8,800 acres), including the base of Steamboat Rim, will be managed to protect big game habitat, vegetation communities, and visual and recreation resources.
7430	SD-17, SD-03	Activities would not be permitted to disrupt access to or use of developed and semi-developed recreation sites. Activities that are incompatible with recreation sites would be managed to avoid these sites.
7431	SD-17, SD-03	Restrict surface-disturbing activities, geophysical activities, and oil and gas exploration and development activities seasonally on crucial big game winter ranges, and big game birthing areas. Grant no exceptions.
7432	SD-17, SD-03	Require closed loop drilling systems in the eastern portion of the ACEC and prohibit reserve pits.
7433	SD17, SD-03	Dune ponds will not be used as water sources for development activities.
7434	SD-17, SD-03	About 10,500 acres are designated open to ORV travel on the active sand dunes. ORV travel on about 5,810 acres of stabilized dune areas is limited to existing roads and trails.
Crookston Ranch Portion of the Greater Sand Dunes ACEC		
Goal: SD-20: Preserve its historic features and for the interpretation of ranching history in the area.		
7435	SD-17, SD-03	Retain Crookston Ranch as part of the Greater Sand Dunes ACEC.
7436	SD-17, SD-03	Designate Crookston Ranch 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.
7437	SD-17, SD-03	Suppress fires in the Crookston Ranch area if there is any potential of the structures being burned.
7438	SD-, SD-03	Prohibit OHV use in the area.

Special Designations (SD) – ACECs (7400–7506)				
MA #	Goal/Obj.	Approved RMP ¹		
Natural Co	Natural Corrals ACEC			
Goal:				
SD-21: Pro	ptect and enhance the cult	ural, historical, recreational, wildlife, scenic, and geological values in the area.		
7439	SD-21	Retain the ACEC designation (1,107 acres, Table 2-12, Appendix O, and Map 2-40).		
7440	SD-21	The ACEC is closed to consideration of fluid mineral exploration and development.		
7441	SD-21	Prohibit any surface-disturbing activities that could adversely affect the relevant and important resources in the ACEC. Designate the ACEC an exclusion area for ROWs.		
7442	SD-21	Designate the ACEC an exclusion area for surface solid leasable mineral activity and related facilities and to mineral material sales. The ACEC is open to consideration of further leasing and development by subsurface mining methods only. Prohibit any related ancillary facilities and surface-disturbing activities.		
7443	SD-21	Retain and petition to extend the withdrawal when it expires.		
7444	SD-21	The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of transportation barriers or barriers to other types of uses, to meet resource management objectives.		
		Management activities would be designed to increase public awareness of the significance of the area.		
7445	SD-21	Designate the ACEC as VRM Class II objectives.		
7446	SD-21	Close the NRHP listed prehistoric site (48SW336) (20 acres) to: 1) OHV use; 2) vehicles used for geophysical activities; 3) over the snow vehicles; 4) the use of explosives and blasting.		
		The remainder of the ACEC is open to over-the-snow vehicles. Limit all other OHV travel to designated roads and trails.		
7447	SD-21	Allow construction of temporary wild horse traps provided the management objectives of the area can be met.		
Oregon Buttes ACEC				
Goals:				
SD-22: Protect and enhance the scenic integrity as an historic landmark.				
SD-23: Protect the significant wildlife and geologic values that are found in the area.				
7448	SD-22, SD-23	Retain the ACEC designation (3,441 acres, Table 2-12, Appendix O, and Map 2-40).		
7449	SD-22, SD-23	Designate the ACEC an exclusion area for ROWs. Close the area to mineral material sales, mineral exploration and development activities. Prohibit OHV use for any purpose.		
7450	SD-22, SD-23	The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of barriers to ensure protection to the area.		

Special Designations (SD) – ACECs (7400–7506)			
MA #	Goal/Obj.	Approved RMP ¹	
7451	SD-22, SD-23	Designate the Oregon Buttes ACEC as VRM Class II objectives (see the WSA section for VRM designations relating to WSAs within the ACEC).	
Pine Sprin	ngs ACEC		
Goal: SD-24: Pro	otect cultural, historic, pre	chistoric, geologic, and scenic values.	
7452	SD-24	The ACEC designation would be retained (Table 2-12, Appendix O and Map 2-40).	
7453	SD-24, HR-09, HR- 16	Expand the Pine Springs ACEC from 6,030 to 6,483 acres.	
7454	SD-24, HR-07, HR- 2.1	Designate the ACEC as 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.	
7455		Character Dise Service ACEC to all events independent from and the theory of the time and visitor management errors as necessary.	
/455	SD-24, HR-09, HR- 16	Close the Pine Springs ACEC to all geophysical operations and to the use of blasting and explosives.	
7456	SD-24, HR-07	The ACEC is open to consideration of such actions as fencing, interpretive signs, or construction of barriers to ensure protection to the area and to maintenance of the existing spring development. Close the ACEC to additional spring developments.	
7457	SD-24, HR-16	Designate the ACEC as VRM Class II (see the WSA section for VRM objectives for WSAs within the ACEC).	
South Pass Historic Landscape ACEC			
Goals: SD-25: Protect the visual and historical integrity of the NHTs and surrounding setting. SD-26: Protect the scenic and wildlife values of the area.			
7458	SD-25, SD-26	Retain the ACEC designation (53,772 acres) (Table 2-12, Appendix O and Map 2-40).	
7459	SD-26	Designate as VRM Class II.	

Special Designations (SD) – ACECs (7400–7506)		
MA #	Goal/Obj.	Approved RMP ¹
7460	SD-25, SD-26	The portion of the ACEC that is visible from the NHT and NST, allow surface occupancy and disturbance only if the project causes no more than a weak contrast (VRM) to the setting of the trails and does not cause an adverse effect on the trails, National Historic Landmarks (NHL), or ACEC values. For the entire ACEC area, apply the following management:
		• CSU for fluid minerals
		Closed to Oil Shale
		ROW exclusion
		Pursue proposed withdrawal for mineral location
7461	SD-25, SD-26	Allow placement of temporary wild horse traps provided the management objectives of the area can be met.
Special St	atus Plant Species ACE	
Goals: SD-27: Pro SD-28: Pro SD-29: Pro	event destruction or loss o ovide opportunities for en ovide sufficient protection	f Special Status plant communities and important habitat. hancing or expanding habitat. to prevent listing as threatened and endangered species.
7462	SD-29, BR-27, BR-32	Retain the Special Status Plant Species ACEC (Table 2-12, Appendix O and Map 2-40).
7463	SD-29, BR-27, BR-32	Modify the ACEC to include the Cedar Mountain Easter daisy (<i>Townsendia microcephala</i>) and Green River greenthread (<i>Thelesperma caespitosa</i>) plant species on BLM-administered public land areas occupied by those species (approximately 1,120 additional acres, or 4,469 total acres in the ACEC), Table 2-12, Appendix O, and Map 2-40).
7464	SD-27, SD-29, BR-29	 Prohibit surface-disturbing activities. NSO for fluid minerals. Petition to segregate and pursue a withdrawal for all plant species from mineral location. Close to mineral material sales. Close to solid mineral leasing. Designate as a ROW exclusion area. Prohibit the use of explosives and blasting. Retain existing withdrawals for the following plant species: Small rockcress (<i>Arabis pusilla</i>) (1,020 acres) and Uinta greenthread,

Special Designations (SD) – ACECs (7400–7506)			
MA #	Goal/Obj.	Approved RMP ¹	
7465	SD-28, BR-28, BR-29	Conduct inventories to identify any additional areas where Special Status plant species are located. The window for inventory would depend on each species phenology. As new populations are identified, site boundaries and any ACEC designation on BLM-administered public lands would be expanded to cover any new or expanded sites. Should a plant species be removed from the Special Status plant species list, the portion of any ACEC designation attributed to that plant species would not be retained. Nonessential habitat to support these plants would not be included in the ACEC designation.	
7466	BR-46, SD-27, BR-29	Prohibit the placement of wild horse traps within the ACEC.	
Steamboat	t Mountain ACEC		
Goals: SD-30: Enligeological	hance and maintain the w and ecological features ir	ater quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem. Protect the unique the ACEC.	
SD-31: Ma stabilized s	and dunes along Steambo	habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on bat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas.	
SD-32: Pro	ovide suitable habitat to m	aintain or improve the Steamboat elk herd, other big game populations.	
7467	SD-30, SD-31 SD-32	Expand the Steamboat Mountain ACEC to include the Steamboat Mountain Management Area, western portion of the Red Desert Watershed Management Area, and other areas (439,081 acres, Table 2-12, Appendix O, and Map 2-40).	
7468	SD-30, SD-31 SD-32	Design all activities to place priority consideration on relevant and important values over conflicting land uses. Manage the Steamboat Rim and the base of the rim to protect big game habitat, vegetation communities, and visual and recreation resources.	
7469	SD-31, BR-28, BR-29	Designate the ACEC an exclusion area for direct surface-disturbing activities or any disrupting activities (e.g., offsite dust, air pollutants) that could adversely affect the Special Status plant species and their habitat. Pursue a withdrawal from mineral location and entry under the land laws. Stipulate NSO 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.	
7470	MR-04, SD-31, SD- 32	Consider leasing and development of Federal coal in the area only for subsurface mining methods. Require development or mine plans to ensure adequate measures are taken to protect and maintain the elk herd and its habitat and on a case-by-case basis, the location of surface facilities relating to subsurface mining.	
7471	SD-30, SD-31, BR-18	Open the ACEC to actions that would enhance the management objectives for the area. Actions that could be considered include things such as fencing, interpretive signs, or construction of vehicle barriers.	
7472	SD-30, SD-31, SD-32	Prevent or reduce habitat loss or alteration by applying appropriate surface use and seasonal restrictions and rehabilitation standards to all activities within elk and mule deer crucial winter and parturition habitats, raptor nesting and associated feeding areas, and habitat necessary to accomplish the management objectives for the area.	

Special Designations (SD) – ACECs (7400–7506)			
MA #	Goal/Obj.	Approved RMP ¹	
7473	SD-30, SD-31, SD-32	Designate the ACEC an exclusion area for ROWs.	
7474	SD-30, SD-31, SD-32	Allow vehicle travel on designated roads subject to seasonal restrictions.	
		Apply "no net gain in roads" in crucial habitats. Consider seasonal road closures in transportation planning.	
7475	HR-26, SD-30, SD-31	Designate the ACEC as VRM Class I and II objectives (see the WSA section for VRM objectives for WSAs within the ACEC).	
7476	SD-30, PR-04	Protect the unique geological and ecological features in the ACEC by limiting or prohibiting intrusions and facilities, and by providing public interpretation of these features.	
7477	SD-30, SD-31, SD-32	Design vegetation management to maintain, preserve, or enhance biological diversity.	
7478	LR-01, LR-02, SD-31	Pursue acquisitions to improve manageability of the ACEC on a willing seller condition.	
7479	SD-32, BR-09, BR-10	Allocate any additional forage that becomes available in the ACEC to wildlife use.	
White Mou	untain Petroglyphs ACE	C	
Goals:			
SD-33: Protect cultural resource values from degradation.			
SD-34: Provide for wildlife and scenic values and Native American concerns.			
7480	SD-03, SD-07	Retain the ACEC designation (22 acres, Table 2-12, Appendix O, and Map 2-40).	
7481	SD-03, SD-07	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.	
7482	SD-03, SD-07	Designate the ACEC an exclusion area for: 1) surface-disturbing activities that could adversely affect the resource values in the area; 2) the use of explosives and blasting; 3) ROWs. Pursue a withdrawal from mineral location and entry under the land laws, and retain the existing withdrawal. Close the area to mineral material sales for sand, gravel, or other types of construction or building materials.	
7483	SD-03, SD-07	Designate the ACEC as VRM Class II.	
7484	SD-03, SD-07	Allow geophysical activities such as shothole, blasting, and vibroseis locations provided they are at least 1 mile from the rock art site, and a site-specific analysis determines that visual intrusions and adverse effects would not occur.	
		Prohibit other kinds of activities, such as audible disturbances, if the sacred Native American values at the rock art sites would be adversely affected.	

Special I	Special Designations (SD) – ACECs (7400–7506)					
MA #	Goal/Obj.	Approved RMP ¹				
7485	SD-03, SD-07	Manage the White Mountain Petroglyphs and the surrounding setting (within 3 miles) to protect its cultural and historical values. Designate lands visible within a 3-mile radius of the rock art site open for consideration of such activities as fencing, interpretive signs, or construction and placement of trail and ORV barriers to ensure protection to the rock art site. Allow some activities within 3 miles of the rock art, but not visible from the panels, if they do not affect the visual and audible integrity of the rock art site.				
7486	SD-03, SD-07	Close the ACEC (22 acres) to vehicle travel.				
7487	SD-03, SD-07	Limit vehicle use within the setting of the petroglyphs to designated roads and trails.				
South Win	nd River ACEC					
Goals: SD-35: Provide protection and enharcement of the recreation opportunities, activities, and setting of the area. SD-36: Maintain the high visual values of the area. SD-37: Protect air quality in the adjacent Class I airshed. SD-38: Maintain or enhance biological diversity. SD-39: Prevent fragmentation of grasslands, streams, wetlands, and forest habitats. SD-40: Protect and enhance crucial wildlife habitats and migration corridors. SD-41: Protect the visual and historical integrity of the National Historic Trails and surrounding viewscape. SD-42: Protect and enhance Special Status plants and their habitats. 7488 SD-35, SD-36, SR-01 Designate the South Wind River ACEC (281,104 acres, Table 2-12, Appendix O, and Map 2-40). 7489 SD-35, SD-36, SR-01 Designate the area as VRM Class II objectives.						
		activity could occur and management objectives could be met.				
7491	SD-35, SD-36, SR-01	Allow construction of temporary wild horse traps provided the management objectives of the area can be met.				
7492	SD-35, SD-36, SR-01	Designate the ACEC an exclusion area for ROWs and surface-disturbing activities (unless the purpose of the activity is to benefit the resource objectives for the ACEC). Close the area to mineral material sales (Table 2-8, Appendix O; Map 2-20 and 2-40). 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.				
7493	SD-35, SD-36, SR-01	Manage vegetative resources in the area for the benefit of watershed, and wildlife, in accordance with management objectives of those values.				
7494	SD-35, SD-36, SR-01	Limit motorized and non-motorized vehicles to designated roads and trails, subject to seasonal restrictions.				
Special Designations (SD) – ACECs (7400–7506)						
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MA #	Goal/Obj.	Approved RMP ¹				
7495	SD-35, SD-36, SR-01	Manage necessary life stage wildlife habitats and sensitive species habitats for no-net-loss of habitat and to retain habitat function by applying surface use restrictions. Grant no exceptions, unless they benefit resource values.				
Big Sandy	Openings					
Goals:						
SD-43: Pro	tect and enhance the scen	nic integrity.				
SD-44: Protect the significant watershed, wildlife, and geologic values that are found in the area.						
7496	SR-01	Designate the Big Sandy Openings ACEC (Table 2-12, Appendix O and Map 2-40).				
7497	SR-01	Designate the ACEC as VRM Class II objectives.				
7498	SR-01	Design any facility placement for minimum surface disturbance, unless a site-specific analysis determines that additional activity could occur and management objectives could be met.				
7499	SR-01	Designate the ACEC an exclusion area for ROWs, surface-disturbing activities (unless the purpose of the activity is to benefit the resource objectives for the ACEC), mineral material sales, and mineral location (Table 2-12, Appendix O; Map 2-40). Pursue a withdrawal from mineral location. Close the area to mineral leasing. Do not offer existing mineral leases for lease once they expire.				
7500	SR-01	Limit motorized and non-motorized vehicles to designated roads and trails, subject to seasonal restrictions.				
National H	National Historic Landmarks					
7501	SD-01, HR-10, SD-30	Maintain and protect the integrity of unique resource values, preserve historic significance, and provide opportunity for other compatible uses where appropriate.				
7502	SD-07, HR-07	Provide for appropriate interpretation of sites of high public interest.				
7503	SD-25, SD-01, HR-10	For NHPA section 106 purposes only, until a formal NHL boundary is established, the boundary is the same as the South Pass Historic Landscape ACEC shown on Map 2-40 (53,772 acres), as per the SHPO Letter dated February 3, 2006).				

Socioeconomic Resources (SR) – Economics and Public Safety (hazardous materials; abandoned mine lands) (8000–8008)						
MA #	MA # Goal/Obj. Approved RMP ¹					
Goal a	Goal and Objectives:					
SR-01:	Consider the total effect of	f BLM actions on adjacent, non-BLM lands.				
SR-02:	Provide sustainable econor	mic development opportunities for a diversity of multiple-use resources including energy, mineral extraction, grazing, agriculture,				
and rec	reation, including sightseei	ing, hunting, fishing, tourism, hiking and others.				
SR-02. and loc	1: Provide resources and ne al levels.	ecessary access, consistent with multiple and sustainable use, for economic, cultural, and social viability at the national, regional				
SR-02.2	2: Recognize the importance	ce of mineral and oil and gas extraction as an important component to sustaining the economy of the region.				
SR-02 the fish	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.					
SR-02.4	4: Recognize the importance	ce of wildlife and its habitat and migration corridors to sustaining recreation and the economy of the State and southwest Wyoming.				
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.						
SR: 03.1 Consider the impact of BLM management actions on community health, safety, welfare, infrastructure, services, housing, employment, custom, and culture. SR-04: Respect, recognize, and support public health and safety needs.						
SR-04.	1: Reduce potential threats	to the public health and safety on BLM-administered lands.				
SR-04.2	2: On a case-by-case basis,	permit commercial use of BLM-administered lands prior to use of the area.				
SR-04.	3: Reduce risk to humans a	nd the environment from hazardous materials on BLM-administered lands in the planning area where possible.				
SR-05:	Reduce risk to health and s	safety from geologic hazards on BLM-administered lands within the planning area.				
SR-05.	1: Avoid geologic hazards	on BLM-administered lands within the planning area, where possible.				
SR-05.2: Inventory, assess, and manage geologic hazards on BLM-administered lands within the planning area, where possible. SR-05.3: Address and mitigate hazards from abandoned mines.						
8000	SR-01	Reduce or minimize risk to humans and the environment from hazardous materials on BLM-administered lands within the planning area.				
8001	SR-01	Avoid waste contamination due to any BLM-authorized actions.				
8002	SR-01	Integrate hazardous materials and waste management policies and controls into all BLM programs.				
8003	SR-05	Manage risks to public health, safety, and the environment posed by human-caused hazards and/or natural geologic hazards on the National System of Public Lands.				
8004	SR-05.3	Reduce or eliminate hazards, where possible, from abandoned mine lands on BLM-administered lands within the planning area.				
8005	SR-05.3	Collaborate with WDEQ through existing or new MOUs to identify and plan for remediation of Abandoned Mine Land sites, including the appropriate level of environmental review prior to on-the-ground work.				

Socioeconomic Resources (SR) – Economics and Public Safety (hazardous materials; abandoned mine lands) (8000–8008)					
MA #	Goal/Obj.	Approved RMP ¹			
8006	SR-01	Manage risk to public safety and the environment associated with hazardous substances, wastes, and materials to ensure restoration of contaminated lands and carry out response activities.			
8007	SR-01	Test pits associated with oil and gas activities that contain produced water or drilling fluids at well sites or other locations for Toxicity Characteristic Leaching Procedure constituents. Operator will pay costs for testing and proper disposal.			
8008	SR-05.2, SR-05.3	Identify Abandoned Mine Lands sites with warning signage and consider adding protective fencing where appropriate.			

2.12 Public Involvement

The BLM will continue to work with existing partners, to cultivate new partnerships, and to seek the views of the public. The public will have the opportunity to participate in the NEPA process as individual actions are reviewed and implemented, including the development of implementation-level plans identified in the Approved RMP. It will use such techniques as news releases and website postings to ask for participation and to inform the public of new and ongoing management actions and site-specific planning. The public may engage through the RSFO.

The BLM will continue to coordinate, both formally and informally, with the numerous Federal and State agencies, Native American Tribes, local agencies, and officials interested and involved in the management of public lands in the RSFO.

2.13 Management Plan Implementation

The BLM will develop an implementation plan to identify actions to achieve the desired outcomes of the Approved RMP. The implementation plan will assist BLM managers and staff to prepare budget requests and to schedule work priorities. The BLM will prepare supplementary rules to provide full authority to BLM law enforcement to enforce management decisions made in the Approved RMP pursuant to the BLM's authority under 43 CFR 8365.1-6.

The BLM will issue decisions about proposed actions to implement the RMP. During implementation of the RMP, the BLM will prepare additional documentation to comply with NEPA before approving specific actions. This can vary from a simple statement of conformance with the RMP and adequacy of existing NEPA analysis to more complex environmental assessments or EISs that analyze several alternatives.

2.14 RMP Evaluation, Amendment, Maintenance, Monitoring, and Adaptive Management

The BLM will monitor and periodically evaluate implementation of the RMP based on guidance in the BLM's Land Use Planning Handbook, H-1601-1 (BLM 2005d), as amended.

2.14.1 RMP Evaluation

In accordance with the BLM's Land Use Planning Handbook (H-1601-1; BLM 2005d), the BLM will periodically evaluate the Approved RMP. Evaluation is the process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions are still appropriate, how effectively the plan is being implemented, and whether the NEPA analysis needs to be updated to support future decision making. Land use plan evaluations determine whether:

- The decisions remain relevant to current issues
- Decisions are effective in achieving or making progress toward achieving the desired outcomes specified in the RMP
- Any decisions need revision, amendment, or deletion
- Any new decisions are needed

In making these determinations, the BLM's evaluation will consider whether mitigation measures such as those described in the Approved RMP are effective in mitigating impacts, whether there are significant

changes in the related plans of other entities, or whether there is significant new information. In addition to periodic evaluations, special evaluations may be required to review unexpected management actions or significant changes in the related plans of Native American Tribes, other Federal agencies, and State and local governments; or to evaluate legislation or litigation that has the potential to trigger an amendment or revision process for the RMP. Evaluations may identify resource needs, as well as the means for correcting deficiencies and addressing issues through plan maintenance, amendments, or revisions. Evaluations should also identify where new and emerging issues and other values have surfaced.

2.14.2 RMP Amendment

RMP decisions are modified through either a plan amendment or another RMP revision. The process for performing plan amendments is largely the same as the land use planning process used in developing and revising RMPs. The primary difference is that circumstances may allow for completing a plan amendment through the environmental assessment process, rather than through an EIS. Plan amendments (43 CFR 1610.5-5) change one or more of the terms, conditions, or decisions of an approved land use plan. Plan amendments are most often prompted by the need to consider a proposal or action that does not conform to the plan; implement new or revised policy that changes land use plan decisions; respond to new, intensified, or changed uses on BLM-administered lands; and consider significant new information from resource assessments, monitoring, or scientific studies that may change land use plan decisions.

2.14.3 RMP Maintenance

BLM regulations in 43 CFR 1610.5-4 stipulate that RMP decisions and supporting actions can be maintained to reflect minor data changes. Maintenance is limited to further refining, documenting, or clarifying a previously approved decision incorporated in the RMP. Maintenance must not expand the scope of resource uses or restrictions or change the terms, conditions, and decisions of the approved RMP. Some examples of maintenance actions are:

- Correcting minor data, typographical, mapping, or tabular data errors, such as updating acreage figures shown throughout the RMP. Acreages are based on GIS data, which are subject to constant refinement.
- Refining baseline information as a result of new inventory data (e.g., refining the known habitat of special status species.)

Plan maintenance will be documented in supporting records. Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new land use plan decisions.

2.14.4 RMP Monitoring

Monitoring is the process of tracking and documenting the implementation (or the progress of implementation) of land use plan decisions. Land use plan decision monitoring is a continuous process occurring throughout the life of the RMP, with the aim of maintaining a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions about: (1) whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring) identified in Section 2.11, *Goals, Objectives, and Management Decisions*, (2) whether RMP allowable use and management action decisions and the resultant implementation actions are effective in achieving program-specific objectives or desired outcomes (effectiveness monitoring), and (3) calculating the cost of delivering a service or product (efficiency monitoring by program elements). Implementation monitoring tracks the completion of land use plan decisions, whereas effectiveness monitoring helps determine whether completion of land use

plan decisions achieves anticipated desired outcomes. If implementation of land use plans does not achieve anticipated desired outcomes, adaptive management may be necessary.

To monitor the RMP decisions for ACECs, the BLM will develop and implement a monitoring plan as required by 43 CFR 1610.4-9. The monitoring plan will identify monitoring questions and program reporting items specific to each ACEC and its R&I values. The frequency and type of monitoring will be appropriate and commensurate with the sensitivity of the R&I values within the ACEC (43 CFR 1610.4-9). The monitoring plan will document the BLM's strategy for collecting data and information to measure the achievement of the management direction in the RMP. The monitoring plan will identify when and where monitoring will take place (43 CFR 1610.4-9) and the standards for evaluation (43 CFR 1601.0-5(n)) of the ACEC decisions. In addition to the implementation monitoring done through the RMP monitoring plan, it will effectively monitor to ensure the R&I values are protected and to help the BLM determine if RMP objectives are being met. By doing so, the need, if any, for modification to the RMP will be identified early.

The BLM uses conclusions drawn from monitoring to make recommendations on whether to continue current management or to determine what changes need to be made to implementation practices to better achieve RMP goals. Indicators, methods, locations, units of measures, frequency, and action triggers can be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues.

Based on staffing and funding levels, monitoring is annually prioritized consistent with the goals and objectives of the RMP. The BLM may work in cooperation with local, State, and other Federal agencies, or it may use data collected by other agencies and sources when appropriate and available.

2.14.5 RMP Adaptive Management

Adaptive management is a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or to reevaluate the outcomes. The RSFO will implement the adaptive management process for appropriate resources and uses to meet resource goals and objectives. These include, but are not limited to, air resources, water resources, fish and wildlife, soils, and livestock grazing. For air resources, refer to the *Comprehensive Air Resources Protection Protocol* (BLM 2015). The BLM will implement an adaptive management strategy to account for changing resource conditions and to minimize adverse impacts on resources from BLM-authorized activities. The strategy includes evaluating conditions on an ongoing basis and, if necessary, implementing appropriate mitigation measures to meet the identified RMP objectives and targets. Monitoring, reports, documents, and timelines associated with the adaptive management process will be subject to RSFO budget and staffing constraints.

2.15 References

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2.16 Glossary

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).

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).

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.

Administrative Use: 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: A documented program developed as an activity plan, consistent with the definition at 43 U.S. Code (U.S.C.) 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.

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: 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 kilograms), either dry or with calf up to 6 months of age, or their equivalent, consuming about 26 pounds of forage per 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 1 month (43 Code of Federal Regulations [CFR] 4100.0-5). For the purpose of calculating grazing fees, an AUM is defined as a month's use and occupancy of range by one cow, bull, steer, heifer, horse, burro, or mule, five sheep, or five goats over the age of 6 months (43 CFR 4130.8-1(c)).

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) has issued a formal authorization document (e.g., livestock grazing lease/permit, right-of-way [ROW] grant, coal lease, oil and gas permit to drill). Formal authorized uses can involve both commercial and noncommercial activity, a facility placement, or am 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) require no formal BLM authorization.

Authorized Officer (AO): 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 Council on Environmental Quality (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 (BMP): 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 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 (USFWS) 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.

Bureau of Land Management Sensitive Species: Species that require special management consideration to avoid potential future listing under the Endangered Species Act (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 USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the 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 off-highway vehicles (OHV), 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 ROWs, 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 AO determines that appreciable impacts on surface resources may occur, they 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 Federally 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). On land status maps this alternating ownership is either delineated by color coding or alphabetic code resulting in a "checkerboard" visual pattern.

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 AO.

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

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 Forest Land: Forest land 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 forest land base.

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

Communication Site: A site ROW 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.

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 their 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; therefore, 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, ROW, multiple pipelines (such as for oil and gas), electricity transmission lines and related infrastructure, recreation and trails, and wildlife migration. See definitions: Right-of-Way 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 (NEPA). 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 Management Plan: 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).

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.

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

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.

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), 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 1 hour during any one 24-hour period during the applicable season in the site-specific area.

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

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

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): 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; and (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.

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 USFWS under the authority of the ESA.

Enhance: The improvement of habitat by increasing missing or modifying unsatisfactory components and/or attributes of the plant community to meet biological objectives.

Environmental Assessment (EA): Concise, analytical documents, authorized by NEPA, 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 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, and swales. These channels 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.

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 (BLM Handbook 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., ROWs), 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*.

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.

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: 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: 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.

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.

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.

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.

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).

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

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.

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.

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

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 BMPs. 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 (BLM Handbook 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.

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

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 AO for the maintenance of wild horse and burro herds. HMAs 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.

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 in, the National Register of Historic Places (NRHP), 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.

Identified 100-Year Floodplains: Those areas delineated by the Federal Emergency Management Agency as having a 1-percent 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 BMPs to meet land use plan objectives. Implementation plans are synonymous with "activity" plans. Examples of implementation plans include interdisciplinary management plans, HMPs, 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.

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

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 (e.g., plant communities, wildlife habitats, archaeological or paleontological resources).

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: 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 Interior Board of Land Appeals acts for and on behalf of the Secretary of the Interior, its decisions usually represent the Department of the Interior's final decision but are subject to the courts.

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.

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

Lands with Wilderness Characteristics (LWC): 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.

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 FLPMA 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 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.

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.

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 Natural Resources Conservation Service's 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).

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.

Mineral: Any naturally formed inorganic material or 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 saleable (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; 30 U.S.C. 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.

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 (BLM Handbook 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 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).

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. NAAQS 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): NEPA (42 U.S.C. 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 CEQ.

National Historic Preservation Act (NHPA): The NHPA (Public Law 113-287; 54 U.S.C. 300101 et seq.) is legislation intended to preserve historical and archaeological sites in the United States of America. The act created the NRHP, the list of National Historic Landmarks, and the State Historic Preservation Offices.

National Historic Trail (NHT): 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 an NHT is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. An NHT 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 NHPA, the NRHP 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.

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 Forest Land: 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.

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 (BLM Handbook 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 AO 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 ORV designation definitions have been developed in cooperation with representatives of the U.S. Forest Service, National 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 is 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.

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 U.S.C. 3001]). The term does not apply to petrified wood or fossiliferous units.

Particulate Matter: 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.

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

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 ACECs, lands within the National Wilderness Preservation System, and areas closed to ORVs, 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 and 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 RMPs 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.

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, that 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.

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.

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 (BLM Handbook H-8342-1, Travel and Transportation Management Handbook).

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

Proper Functioning Condition (PFC): A riparian-wetland area is considered to be in PFC 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 groundwater 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, and marshes, 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 USFWS. 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 BLM, without regard to how the United States acquired ownership.

Range Improvement: Any activity, structure, or program on or relating to rangelands that 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.

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: 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: A projection of likely exploration, development, and production of development 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).

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 predetermined objectives and/or make it acceptable for certain defined resources (e.g., wildlife habitat, grazing, ecosystem function).

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. The 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 FLPMA. The RMP generally establishes in a written document: (1) land areas for limited, restricted or exclusive use; designation, including ACEC designation; and transfer from BLM 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 that 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 ROWs and that is suitable to accommodate one or more ROWs 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 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.

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 (BLM Handbook H-8342-1, Travel and Transportation Management Handbook).

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

Saleable 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).

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

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.

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 USFWS 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 of Land Management Sensitive Species).

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, it provides new information about the history of life on earth, or it 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 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.

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 ESA; 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 resources, and threatened and endangered species. It is important to recognize that the AO has the authority to modify the siting and design of facilities, control the rate of development and timing of activities, and 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-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).

Succession: The progressive replacement of plant communities on a site that leads to a potential natural plant 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 on 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 (fewer than 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 that 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). 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 3809 regulations. The three levels of operations under these regulations defined in this glossary include Casual Use 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 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 the surface (e.g., pipelines) of the public lands. It does not refer to those subterranean activities (e.g., underground mining) occurring on the public lands or Federal mineral estate. When administered as a use restriction (e.g., No Surface Use), 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) and/or administrative sites (e.g., government ware-yard) where only authorized agency personnel are admitted.

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

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.).

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.

Threatened Species: Any plant or animal species defined under the ESA 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 USFWS and the Secretary of the Interior.

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 TCP is defined as a property that is eligible for inclusion in the NRHP 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 ORV forms of transportation, or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles (BLM Handbook 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 kilovolts or a natural gas, hydrogen, or water pipeline greater than or equal to 24 inches in diameter.

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.

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 ROW corridor utilized when designating a full-length ROW corridor is not feasible (see Corridor definition).

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.

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 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 the 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: VRM 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 (BLM Handbook H-1624-1, Planning for Fluid Mineral Resources).

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.

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" (WSR). 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.

Wilderness: A congressionally designated area defined by the Wilderness Act of 1964, 16 U.S.C. §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. LWCs 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 FLPMA 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, or unauthorized and accidental human-caused fires, and prescribed fires that are declared wildfires.

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: 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 U.S. Department of Agriculture 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.

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Acronyms	
Federal Land Policy and Management Act (FLPMA	1-1
U.S. Code (U.S.C.	1-1
U.S. Department of the Interior (DOI	1-1
Bureau of Land Management (BLM	1-1
resource management plan (RMP	1-1
record of decision (ROD	1-1
Rock Springs Field Office (RSFO	1-1
Code of Federal Regulations (CFR	1-1
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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 helibases) 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 the Approved Resource Management Plan (RMP) and Record of Decision. 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 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	Approved RMP
Management #	1106
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.
	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.
	(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:
	• The disturbed area will be stabilized with no evidence of accelerated erosion features.
	• 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.
	• Slope stability is maintained preventing slope failure and erosion.
	• 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.
	• The original landform and site productivity will be partially restored during interim reclamation and fully restored as a result of final reclamation.
	(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.
	Purpose: To protect soils with low reclamation potential.

Description	Approved 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.
	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.
	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 #	1113
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.
	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.
	Purpose: To protect the scientific and scenic values of Pilot Butte and Emmons Cone.
	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.
	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.
	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 #	1308
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	Approved 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 Guidelines for Surface-Disturbing and Disruptive Activities. 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.
	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.
	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.
	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.
	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 #	1309
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.
	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	Approved RMP
	Purpose: To protect the aquifer recharge areas.
	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.
	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.
	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 #	1310
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.
	Unavailable to fluid minerals leasing.
	Designate as a ROW avoidance area.
Stipulation Description	Stipulation: None
Management #	2201
Protected Resource	Mechanically Mineable Trona Area (MMTA)
RMP Affected Area	MMTA 144,409 acres
Stipulation	Closed
Action Text	Continue to suspend existing oil and gas leases from development within the Mechanically 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.
Stipulation Description	Stipulation: None
Management #	2206
Protected Resource	JMH Area 2.
RMP Affected Area	Map 3-20

Description	Approved RMP
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).
	CSU for fluid minerals.
	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.
	Purpose: To protect the sensitive resources in Area 2.
	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.
	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.
	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 #	2207
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 ¹ / ₂ mile within portions of the boundary of Area 3.
Stipulation Description	Stipulation: None
Management #	2208
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).

Description	Approved RMP
	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 #	4410
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.
	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.
Stipulation Description	Stipulation: No disruptive activities will be allowed in big game crucial winter range between November 15 and April 30.
	Stipulation: No disruptive activities will be allowed in big game parturition areas between May 1 and June 30.
	Purpose: To protect big game winter range and parturition areas from activities that would adversely harm them during winter months and in breading season.
	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.
	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.
	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 #	4411
Protected Resource	Big game migration corridors.
RMP Affected Area	Map 2-10
Stipulation	CSU

Description	Approved RMP
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. 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).
	Purpose: To protect big game migration corridors to ensure that development activities do not affect their functionality.
	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.
	Modification: None
	Waiver: None
Management #	4415
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):
	• Ferruginous hawk – ½ mile
	• Bald eagle – 1 mile
	• Golden eagle – ¼ mile
	• Burrowing owl – ¹ / ₄ mile
	• General raptor – ¹ / ₄ mile
	CSU for fluid minerals.
	Modify buffer recommendations, on a site-specific or project-specific basis, based on field observations and local conditions.

Description	Approved RMP
	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.
	Purpose: To protect nesting raptors during critical breeding periods.
	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.
	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.
	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 #	4416
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.
	Purpose: To protect nesting raptors during critical breeding period.
	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.
	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.
	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.

Description	Approved RMP
	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 #	4418
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.
	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.
	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.
	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.
	Purpose: To protect spawning activities and egg incubation of fish during reproductive periods.
	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.
	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.
	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 #	4601
Protected Resource	Special Status plant species.
RMP Affected Area	Map 2-10

Description	Approved RMP
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.
	NSO for fluid minerals.
	Petition to segregate and pursue a withdrawal from locatable mineral entry.
	Close to mineral material sales.
	Close to solid mineral leasing.
	Designate as a ROW avoidance area.
	Close to all OHV use, including those vehicles used for geophysical exploration activities, surveying, etc.
	Prohibit the use of explosives and blasting.
Stipulation Description	Stipulation: No surface occupancy or use within 100 feet of any Special Status plant species.
	Purpose: To protect Special Status plants from activities that could adversely affect the plants or their habitat.
	Exception: The BLM AO can approve exceptions where applicants could demonstrate that proposed activities would not impact sensitive plant species.
	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.
	Waiver: This stipulation may be waived if the AO determines that the entire leasehold does not contain any Special Status plant species.
Management #	4607
Protected Resource	Special status plant species.
RMP Affected Area	Map 2-10
Stipulation	CSU
Action Text	Allow surface-disturbing activities in Special Status plant species' mapped habitat, subject to adequate mitigation of impacts following BLM mitigation policies.
	1) CSU for fluid minerals
	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.
	Purpose: To protect Special Status plants from activities that could adversely affect the plants or their habitat.

Description	Approved RMP
	Exception: The BLM AO can approve exceptions where applicants could demonstrate that proposed activities would not impact sensitive plant species.
	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.
	Waiver: This stipulation may be waived if the AO determines that the entire leasehold can be occupied without adversely affecting the resources.
Management #	4610
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.
	Exception: None
	Modification: None
_	Waiver: None
Management #	4616
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 ¹ / ₄ mile until the end of the nesting season.
	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).

Description	Approved RMP
	Purpose: To protect mountain plover nesting habitat during nesting season (April 10 to July 10).
	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.
	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.
	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 #	5005
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.
	Petition to segregate and pursue a withdrawal from locatable mineral entry.
	Allow only those activities related to scientific investigation.
	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 #	5009
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.
	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.

Description	Approved RMP
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.
	Purpose: To protect the scientific value of these NRHP sites.
	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.
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.
	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.
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 ¹ / ₂ mile to protect Native American, cultural and historical values. These include:
	1) Cedar Canyon - 21.7 acres
	2) LaBarge Bluffs - 5 acres
	3) Sugarloaf - 2.3 acres
	4) Tolar - 8.3 acres
	5) White Mountain - 21.6 acres
	The rock art site (excluding the ½ mile setting):
	1) Prohibit surface occupancy
	2) NSO for fluid minerals
	3) Close to mineral material sales/disposal
	4) Maintain existing withdrawals (Sugarloaf petroglyphs [5 acres] and White Mountain [20 acres]) and pursue new withdrawals for mineral location
	5) Designate as a ROW exclusion area
	6) Allow subsurface mining only if a site-specific analysis determines no adverse effects will occur
	7) Designate as visual resource management (VRM) Class II

Description	Approved RMP
	Setting (within ¹ / ₂ mile of site):
	Allow surface-disturbing activities and visual, audible, and atmospheric intrusions only if they do not adversely affect Native American, cultural, or historical values.
	1) CSU for fluid minerals
	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.
	Purpose: To protect significant rock art sites.
	Exception: None
	Modification: None
	Waiver: None
	Viewshed
	CSU: Standard Lease Stipulation 1.
	Purpose: To protect significant rock art sites.
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.
	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 #	5103
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.
	Manage as:
	1) NSO for fluid minerals
	2) Close to mineral material sales/disposal
	3) Designate an exclusion area for all new ROW

Description	Approved RMP
	Consult with appropriate tribes regarding management of Native American burial sites.
	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.
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.
	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 #	5104
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.
	CSU for fluid minerals.
	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.
	Purpose: To protect the cultural values of the Boyer Ranch House and the Dug Springs Stage Station.
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.
	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 #	5106
Protected Resource	Crookston Ranch.
RMP Affected Area	40 acres
Stipulation	NSO

Description	Approved RMP
Action Text	The Crookston Ranch site, approximately 40 acres.
	NSO for fluid minerals.
	Petition to segregate and pursue withdrawal from mineral location.
	Close to mineral material sales.
	Close to solid mineral leasing.
	Designate as a ROW exclusion area.
	Prohibit geophysical activities such as shothole, blasting, and vibroseis locations within 1/4 mile from the site.
	Allow geophysical activities outside of ¹ / ₄ mile only after a site specific analysis determines that visual intrusions and adverse effects would not occur.
	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.
	Exception: None
	Modification: None
	Waiver: None
Management #	5307
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.
	Designate as a ROW avoidance area.
	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.
	Purpose: To protect the paleontological values of the Farson Fossil Fish Beds.
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.

Description	Approved RMP			
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.			
	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 #	6510			
Protected Resource	Developed recreation sites.			
RMP Affected Area	Map 2-10			
Stipulation	NSO			
Action Text	Allow surface-disturbing activities within ¹ / ₄ 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.			
	Manage as an NSO for fluid minerals.			
Stipulation Description	Stipulation: Prohibit surface occupancy within ¹ / ₄ 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.			
	Purpose: To protect the recreation sites so they are not adversely affected.			
	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.			
	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.			
	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 #	6516			
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.			
Description	Approved RMP			
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Stipulation Description	Stipulation: Restrict surface disturbing activities within ¹ / ₄ 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.			
	Purpose: To protect the Continental Divide Snowmobile Trail and South Pass Cross Country Ski Trail.			
	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.			
	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.			
	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 #	6518			
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)			
Stipulation Description	Stipulation: None			
Management #	6522			
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. Petition to segregate and pursue withdrawal from mineral location. Close to mineral material sales. Prohibit geophysical activities such as shothole, blasting, and vibroseis locations. Closed to fluid minerals. 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.			

Description	Approved RMP		
	Purpose: To protect the resource objectives of the Killpecker Sand Dunes Special Management Area.		
	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.		
	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.		
	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 #	6528		
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 #	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:		
	National Trail Management Corridor is a CSU for fluid minerals.		
	• The area within ¹ / ₄ 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.		

Description	Approved 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.		
	Purpose: To protect the National Historic Trails and their setting.		
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.		
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.		
	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 #	7011		
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. Retain the existing 40-acre mineral withdrawal. NSO for fluid minerals.		
Stipulation Description	Stipulation: Surface occupancy and use will be prohibited at the Parting-of-the-Ways historical site. Purpose: To protect the Parting-of-the-Ways historical site.		
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.		
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.		
	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 #	7015		
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	Approved 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.			
	Actions within 500 feet of a contributing segment of road or trail:			
	1) NSO for fluid minerals.			
	2) Designate as a ROW avoidance area.			
	For most projects, the setting will be analyzed out to 1 mile on either side of contributing segments of the historic roads and trails.			
	For highly visible projects, impacts on 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.			
Stipulation Description	Stipulation: Prohibit surface occupancy within 500 feet of a contributing segment of a road or trail.			
	Purpose: To protect contributing segments of historic roads or trails.			
	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.			
	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.			
	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 #	7203			
Protected Resource	Wild and Scenic Rivers			
RMP Affected Area	Map 3-1			
Stipulation	CSU			
Action Text	All Classifications			
	Within ¹ / ₂ mile of either side of the river bank:			
	Designate as a ROW exclusion area.			
	Manage surface-disturbing activities to maintain the wild and scenic rivers.			
	CSU for fluid minerals.			
	Close to mineral material sales.			

Description	Approved RMP			
	Retain the existing withdrawal from mineral location.			
Stipulation Description	Stipulation: No surface-disturbing activities ¹ / ₂ mile of either side of river bank, unless operator can provide a plan to the AO t protects the wild and scenic values of the river.			
	Purpose: To protect the wild and scenic values of the rivers.			
	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.			
	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.			
	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	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 #	7314			
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.			

Description	Approved RMP			
	Purpose: To protect sensitive resources to ensure that development activities do not affect their functionality.			
	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.			
	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.			
	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 #	7315			
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.			
	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.			
	Purpose: To protect the resource values of the Sugarloaf Basin.			
	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.			
	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.			
	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 #	7319			
Protected Resource	The Pinnacles Geographic Area.			
RMP Affected Area	8,950 acres			

Description	Approved RMP		
Stipulation	NSO		
Action Text	Manage as: (1) closed to mineral material sales/disposal; (2) exclusion area for ROW.		
	Pursue withdrawal from mineral location.		
	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.		
	Purpose: To protect the resource values of the Pinnacles Geologic Area.		
	Exception: None		
	Modification: None		
	Waiver: None		
Management #	7320		
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 #	7424		
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.		
	Limit surface-disturbing activities to actions that would preserve or enhance the values of the area.		
Stipulation Description	Stipulation: None		
Management #	7431		
Protected Resource	Crucial big game winter ranges, big game birthing areas.		
RMP Affected Area	Map 3-3		

Description	Approved RMP		
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.		
	Exception: None		
	Modification: None		
	Waiver: None		
Management #	7440		
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		
Management #	7454		
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.		
	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.		
Stipulation Description	Stipulation: None		

Description	Approved RMP			
Management #	7460			
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:			
	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.			
	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.			
	Purpose: To protect the National Historic Trails and their setting.			
	Exception: The BLM AO may grant an exception if it is determined that the action will meet the performance standards above.			
	Modification: The BLM AO may modify the area subject to the stipulation based upon a BLM evaluation or environmental record of review.			
	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.			
Management #	7464			
Protected Resource	Special Status Plant Species ACEC.			
RMP Affected Area	Map 2-39			
Stipulation	NSO			
Action Text	Prohibit surface disturbing activities.			
	1) NSO for fluid minerals			
	2) Segregate and pursue a withdrawal from locatable mineral entry			
	3) Close to mineral material sales			
	4) Close to solid mineral leasing			
	5) Designate as a ROW exclusion area			
	6) Prohibit the use of explosives and blasting			

Description	Approved RMP		
	Retain existing withdrawals for the following plant species: Small rockcress (<i>Arabis pusilla</i>) (1,020 acres) and Uinta greenthread, (<i>Thelesperma pubescens</i>) (3,646 acres).		
Stipulation Description	Stipulation: Prohibit surface occupancy and use within the Special Status Plant Species ACEC.		
	Purpose: To protect Special Status plants from activities that could adversely affect the plants or their habitat.		
	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.		
	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.		
	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 #	7469		
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.		
	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.		
	Purpose: To protect the Special Status plant species in the Steamboat Mountain ACEC.		
	Exception: None		
	Modification: None		
	Waiver: None		
Management #	7488		
Protected Resource	South Wind River ACEC.		
RMP Affected Area	Map 2-39		

Description	Approved RMP
Stipulation	NSO
Action Text	No similar action. Management of this area is addressed through management of the National Trails Corridor.
Stipulation Description	Stipulation: None

APPENDIX C—AREAS OF CRITICAL ENVIRONMENTAL CONCERN EVALUATION

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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	Chan	ter 2	Management	Action	7404 i	in the	Proposed	RMP /Final	EIS)
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Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Native American rock art panels	Yes	Culturally significant to the Tribes and to modern local culture.
A fish and wildlife resource: Raptor nesting area 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-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 DescriptionThis area contains the Red Creek Escarpment and the Red Creek Drainage, in addit 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Bill Pidgeon's grave Red Creek Escarpment 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: Colorado River cutthroat trout Big game crucial winter range 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: Red Creek Escarpment Old growth juniper communities Special Status plant species 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: 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. 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 DescriptionThe area generally contains varying habitats, including riparian along the stream, sage 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). 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: 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: Colorado River cutthroat trout Elk and deer crucial habitat 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: Special Status plant species 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: 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. 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Melinda Armstrong's Grave Surveyor Grave (Mike Gibbons) Cherokee Trail 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: Colorado River cutthroat trout Sage-grouse PHMA Big game crucial winter range 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: Relic plant communities 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: Greater than 25% slopes Numerous springs 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 were added with this effort.

(See	Chapter 2	Management	Action	7312 i	n the	Proposed	RMP/Final	EIS)
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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: Raptor nesting area Sage-grouse core 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: Old growth juniper	Yes	Portions of the Salt Wells area contain some of the oldest juniper communities in the planning area.
Natural hazards: Steep cliffs Fragile soils 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: Sugarloaf Petroglyphs Native American religious concerns 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: Midget faded rattlesnake habitat Pygmy rabbit habitat Sage-grouse PHMA Big game crucial winter range 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: Little Mountain Relic pinion-juniper plant communities 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: 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.





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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Stabilized sand dunes (cultural sites) 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: Sage-grouse PHMA Big game crucial winter range Big game parturition 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: Flockets Basin big sage/lemon scurf pea plant community Old growth sage 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: 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. 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Know human burials Boar's Tusk geologic feature 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: Sage-grouse PHMA Big game crucial winter range Big game parturition 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: Sand Dunes and Buffalo Hump WSAs Boar's Tusk geologic feature Basin big sagebrush/lemon scurfpea plant community 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: 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. 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 in	the P	roposed	RMP/Final	EIS)
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Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Boar's Tusk burial 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: Raptor nesting	Yes	The area is a known raptor nesting location for eagles and other raptors.
A natural process or system: 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 ¹ / ₂ .
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 74	471 in the	Proposed	RMP/Final	EIS)
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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. 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Adobe Town WSA 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: Big game crucial winter range 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: 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: 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 in the Proposed RMP/Final EIS)
Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Intact cultural resources 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: Big game crucial winter range Big game parturition 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: 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. 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 in t	he Prop	osed RMF	/Final EIS	5)
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Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Cultural and historic 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: Big game parturition Raptor nesting 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: Unique geologic feature 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: 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.

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Native American Sacred Landscape 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: None identified	No	
A natural process or system: Paleontology study location Geology interpretation 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: 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.

(See Chapter 2 Management Action 7490 in the Proposed RMP/Final EIS)

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 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: 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: Big game crucial winter range 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: 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: 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Scenic values 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: Big game crucial winter range Sage-grouse PHMA 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: The Pinnacles Water recharge area 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: 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Wind River Front SRMA Lander Cutoff NHT 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: Big game crucial winter range Big game parturition Sublette mule deer migration corridor 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: Fremont county rockcress Meadow pussytoes 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: 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: Recreation management (rivers) 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: Big game crucial winter range Big game parturition Sage-grouse PHMA Special Status fish species 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: None identified	No	
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	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: NHTs 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: BLM sensitive species Sage-grouse PHMA Big game crucial winter range 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: Aquifer recharge area 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: 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 South Wind River ACEC.

(See Chapter 2 Management Action 7563 in the Proposed RMP/Final	EIS)
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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 $\frac{1}{2}$ miles present a high degree of visual variety.

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A fish and wildlife resource: Big game crucial winter range Big game parturition Sublette mule deer migration corridor 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: None identified	No	
Natural hazards: 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 boundary was 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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Cultural 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. 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. This area is also of high significance currently, historically, and prehistorically to the Native American Tribes.
A fish and wildlife resource: Sublette mule deer migration corridor Big game crucial winter range Big game parturition 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. In addition, due to the proximity of the Continental Divide the area is a known aquifer recharge area.
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	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 in the Proposed RMP/Final EIS)

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 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







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 expansion was 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.

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Indian Gap and associated trail Tri- territory Site 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. This area includes the Tri-territory Historic Site marking a historic boundary between The Louisiana Purchase, Northwest Territory, and Mexico. 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: Big game winter and parturition habitat Big game parturition closure Sublette mule deer migration corridor 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: Special Status plant species 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. In addition, the area contains several locations where volcanic features are present and has been identified as potential for rare earth minerals.

(See Chapter 2 Management Action 7516 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
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	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 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. 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 ir	1 the	Proposed	RMP/Fina	EIS)
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Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: Rock art site Native American sacred and respected place 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: Raptor nesting Big game crucial winter range 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: 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: 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 in the Proposed RMP/Final EIS)

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 in the Proposed RMP/Final EIS)

Relevance Value	Meets Value (Yes/No)	Rationale for Determination
A significant historic, cultural, or scenic value: WSAs Historic landscapes 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. 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: Sublette mule deer migration corridor 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: Wind River Front SMA Basin big sagebrush/lemon scurfpea plant communities 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. 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: 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. The Emigrant Trail is a part of the American Westward expansion. It is a unique and irreplaceable resource. 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. The Emigrant Trail and the South Pass are unique and irreplaceable. 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. 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-3150-1¹ 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).

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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 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 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 2003¹).

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 #		W					
Allotment Name		1 Soil Conditions	2 Riparian Habitat	3 Upland Vegetation	4 Habitat Conditions	5 Water Quality	6 Air Quality**	Land Health Standard(s) Not Achieved
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 UseInvasive Species
Cedar Mountain	WY03201	Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	Livestock UsePrivate 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	

			W					
Allotment Name	Allotment #	1 Soil Conditions	2 Riparian Habitat	3 Upland Vegetation	4 Habitat Conditions	5 Water Quality	6 Air Quality**	Significant Causal Factors if Land Health Standard(s) Not Achieved
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 Upstream Dam
Erramouspe	WY13105	Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	Livestock UsePrivate 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 UseIrrigation Practices

			W					
Allotment Name	Allotment #	1 Soil Conditions	2 Riparian Habitat	3 Upland Vegetation	4 Habitat Conditions	5 Water Quality	6 Air Quality**	Significant Causal Factors if Land Health Standard(s) Not Achieved
Hickey Mountain	WY04013	Meeting	Not Meeting	Meeting	Meeting	Meeting	Meeting	Livestock UseMineral DevelopmentUpstream 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 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	

			W					
Allotment Name	Allotment #	1 Soil Conditions	2 Riparian Habitat	3 Upland Vegetation	4 Habitat Conditions	5 Water Quality	6 Air Quality**	Significant Causal Factors if Land Health Standard(s) Not Achieved
Mellor Mountain	WY04027	Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	 Historic Livestock Use Private Land Practices Upstream Conditions Roads Irrigation Practices
Middle Hay Place	WY13107	Meeting	Meeting	Meeting	Meeting	Unknown	Meeting	
Pacific Creek	WY13007	Not Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	Livestock UseIrrigation 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 Upstream Conditions 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	

			W					
Allotment Name	Allotment #	1 Soil Conditions	2 Riparian Habitat	3 Upland Vegetation	4 Habitat Conditions	5 Water Quality	6 Air Quality**	Significant Causal Factors if Land Health Standard(s) Not Achieved
Sage	WY04024	Meeting	Not Meeting	Meeting	Meeting	Meeting	Meeting	Livestock Use
Sage Creek Mountain	WY03200	Meeting	Not Meeting	Meeting	Meeting	Meeting	Meeting	Livestock UseUpstream ConditionsIrrigation Practices
Salt Wells	WY04009	Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	Livestock UseIrrigation PracticesUpstream 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 UsePrivate Land Practices
Sublette	WY13027	Meeting	Meeting	Meeting	Meeting	Unknown	Meeting	
Sugarloaf	WY04010	Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	 Invasive Species Historic Livestock Use Wildlife Use Wildfire
Sweetwater	WY13109	Meeting	Meeting	Meeting	Meeting	Unknown	Meeting	
Upper White Acorn	WY13101	Unevaluated	Unevaluated	Unevaluated	Unevaluated	Unevaluated	Meeting	

			W					
Allotment Name	Allotment #	1 Soil Conditions	2 Riparian Habitat	3 Upland Vegetation	4 Habitat Conditions	5 Water Quality	6 Air Quality**	Significant Causal Factors if Land Health Standard(s) Not Achieved
Vermillion Creek	WY04003	Meeting	Not Meeting	Meeting	Meeting	Unknown	Meeting	Invasive SpeciesUpstream 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 costeffective 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 (restrotation, 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, grasslike 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 runoff, streamflow, etc. Typically, these are hills, ridgetops, valley slopes, and rolling plains.

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APPENDIX H—RECLAMATION PLAN

H.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.

H.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

H.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.

H.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.

H.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.

H.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.

Activity	Critical Components
	Identify site location
	Contact BLM
	Consult soil survey maps
Initiating baseline inventory	Determine ESD
	 Consult Wyoming Geographic Information Center (WyGISC) to access aerial photography in color, grayscale, or color infrared (CIR)
	Identify wildlife presence or use
Conducting baseline inventory	 Travel to site Verify ESD and soil types Record vegetation types and distribution on the site using an accepted method for collecting the data Record topographical landforms and surface hydrological features Take photographs to provide a visual reference Document data gathering and photos with GPS coordinates.

Table H-1. Description of Baseline Inventory

H.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 invasive¹ 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.

H.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.

H.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 interim² and final reclamation³ 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 predisturbance 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.

Rock Springs Field Office Approved Resource Management Plan

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.

H.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.

	QUALITA	ATIVE MONITORING SHEET		
Well I	Name/ Number			
Moni	toring Date			
Comp	oany			
Inspe	ctor			
• we	ell Pad 🛛 Access Road 🗖 Pip	eline Dther		
Topso	pil Storage 🛛 Stockpile (> 3ft)	□ Stockpile (< 3ft) □ Direct Haul □	None	
Lengt	h of Topsoil Storage (months)			
Seedi	ng Method Rooadcast			
Jecui				
Date	Seeded	Seed Mix		
Soil A	mendment	Date of Amendment Application		
ltem	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	Rills greater than 2 inches, accelerated erosion is		
	indications of subsidence,	obvious and soils are not being held by plants on		
	slumping and/or significant	site, sheet flow, head cutting in drainages, slopes		
	erosion?	occurring on or adjacent to reclaimed areas.		
4 Absence of noxious weeds?		Perennial pepperweed, Canada thistle, black		
-		henbane, leafy spurge, yellow or Dalmatian		
-		hendane, leaty spurge, yellow or Dalmatian		1
		toadflax, spotted knapweed, Russian knapweed, etc		
5	Absence of other undesirable species?	hendane, leaty spurge, yellow or Daimatian toadflax, spotted knapweed, Russian knapweed, etc. Cheatgrass, Halogeton, Russian thistle, etc.		
5	Absence of other undesirable species?	henbane, leaty spurge, yellow or Dalmatian toadflax, spotted knapweed, Russian knapweed, etc. Cheatgrass, Halogeton, Russian thistle, etc. Seed production is evident.		
5	Absence of other undesirable species? Is there evidence of good reproductive capability?	henbane, leaty spurge, yellow or Dalmatian toadflax, spotted knapweed, Russian knapweed, etc. Cheatgrass, Halogeton, Russian thistle, etc. Seed production is evident. Amount of tillers, rhizomes, flowers, and/or seed		
5	Absence of other undesirable species? Is there evidence of good reproductive capability?	henbane, leaty spurge, yellow or Dalmatian toadflax, spotted knapweed, Russian knapweed, etc. Cheatgrass, Halogeton, Russian thistle, etc. Seed production is evident. Amount of tillers, rhizomes, flowers, and/or seed stalks are comparable to the reference site.		
5	Absence of other undesirable species? Is there evidence of good reproductive capability?	henbane, leaty spurge, yellow or Daimatian toadflax, spotted knapweed, Russian knapweed, etc. Cheatgrass, Halogeton, Russian thistle, etc. Seed production is evident. Amount of tillers, rhizomes, flowers, and/or seed stalks are comparable to the reference site. To answer yes, must have for all three plant		

Item 7: Year of Reclamation

Years 2 - 3 Years 4 - 5 Years 6 -7 Years 8+

If any of the items are answered "<u>No</u>" 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:_____

Ecsional Feature	Potentie By Present Yeal No	Identified Factors (Form 7310-12)	Possible Fector
Soil Movement			14
Sunface Litter			14
Surface Rock Fragments			14
Pedestalling			14
Row Patterns			15
Rils			14
Gullies			15
Column Totals			
Soll 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 comesponding condition class site is in.

Comments:

Form 7310-12 Determination of Erosion Condition Class Soll Surface Factor (SSF)

Well Name/Number:

Date: _____

Operator: _____

Collector:

Soli Movement	Depth of recent deposits around obstacles, or in microterraces; and/or depth of truncated areas, is 0 – 0.1 ln (0 – 2.5 mm). 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). 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) 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) 11	Depth of recent deposits around obstacles, or in microterraces, and/or depth of truncated areas, is > 0.8 in. (20 mm) 14
Surface Litter	No movement, or if present, < 2% of the litter has been translocated and redeposited against obstacles. 0 or 3	2 – 10% of the litter has been translocated and redeposited against obstacles. 6	10 – 25% of the litter has been translocated and redeposited against obstacles. 8	25 – 50%% of the litter has been translocated and redeposited against obstacles. 11	 > 50% of the litter has been translocated and redeposited against obstacles. 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). 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). 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). 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). 11	Depth of soil removal around the fragments, and/or depth of recent deposits around the fragments is > 0.8 in. (20 mm). 14
Pedestals	Pedestals are mostly < 0.1 in (2.5 mm) high and/or have a frequency < 2 pedestals/100 fL 0 or 3	Pedestais are mostly 0.1 – 0.3 In. (2.5 – 8 mm) high and/or have a frequency of < 2 – 5 pedestais/100 ft. 6	Pedestais are mostly 0.3 – 0.6 in. (8 – 15 mm) high and/or have a frequency of < 5 – 7 pedestais/100 ft. 9	Pedestais are mostly 0.6 – 1 ln. (15 – 25 mm) high and/or have a frequency of < 7 – 10 pedestais/100 ft. 11	Pedestais are mostly > 1 In. (25 mm) high and/or have a frequency of > 10 pedestals/100 ft. 14
Flow Patterns	If present, < 2% surface area shows evidence of recent translocation and deposition of soil & litter. 0 or 3	2 – 10% surface area shows evidence of recent translocation and deposition of soil & litter.	10 – 25% surface area shows evidence of recent translocation and deposition of soil & litter. 9	25 – 50% surface area shows evidence of recent translocation and deposition of soil & litter. 12	> 50% surface area shows evidence of recent translocation and deposition of soil & litter. 15
Rills	If present, are < 0.5 in (13 mm) deep and at Intervals > 10 ft. 0 or 3	Rilis are mostly .5 – 1 in. (132 – 25 mm) deep, and at intervals >10 fL 6	Rills are mostly 1 – 1.5 in. (25 – 38 mm) deep, and at intervals > 10 fL 9	Rills are mostly 1.5 – 3 In. (38 – 76 mm) deep, and at Intervals >10 ft. 12	Rils are mostly 3 – 6 In. (76 – 152 mm) deep, and at intervals > 5 ft. 14
Guilles	If present, < 2% of the channel bed and walls show active erosion (no vegetation), guilles make up <2% total area. 0 or 3	2 – 5% of the channel bed and walls show active erosion (no vegetation), guilles make up 2 – 5% total area. 6	5 – 10% of the channel bed and walls show active erosion (no vegetation), guilles make up 5 – 10% total area. 9	10 – 50% of the channel bed and walls show active erosion (no vegetation), guilles make up 10 – 50% total area. 12	Over 50% of the channel bed and walls show active erosion (no vegetation), guilles make up >50% total area. 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 I—SEASONAL WILDLIFE RESTRICTIONS

I.1 APPROVED RMP

Table I-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 (including Elk Parturition area within Steamboat Mountain ACEC)
General raptor	March 1–August 15	1/2 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	1/4 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	1/2 mile of occupied and historic nest sites
Mountain Plover	April 10–July 10	1/4 mile of active nest
Migratory birds	February 1–August 31	Immediate area of nest
Fisheries	March 15–July 31 September 15–November 30	Fish bearing streams

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APPENDIX J-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.

J.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.

J.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.

J.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.

J.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.

J.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.

J.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.

J.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 J-1 lists lands identified for disposal by exchange, sale, or R&PP.

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

Fable J-1	. Lands	Identified	for	Disposal	l
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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, S1/2N1/2, S1/2
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	N ¹ / ₂ SW ¹ / ₄ , E ¹ / ₂ SW ¹ / ₄ SW ¹ / ₄ , SE ¹ / ₄ SW ¹ / ₄ , SE ¹ / ₄
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, E ¹ / ₂ , E ¹ / ₂ W ¹ / ₂
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, S ¹ / ₂ N ¹ / ₂ , S ¹ / ₂
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, E ¹ / ₂ , E ¹ / ₂ NW ¹ / ₄ , E ¹ / ₂ SW ¹ / ₄ .

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	E1⁄2
320.00	T. 20 N.	R. 105 W.	32	E1⁄2
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 SW1/4
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	or Disposal		
Acquisitions to	be Pursued wi	th Willing Pa	rties	
Approximate Acres				
320.00	Sulphur Spring	js Register		
40.00	Dry Sandy Sta	ge Station		
40.00	LaClede Stage	e Station (form	nerly known a	s Fort LaClede)
40.00	Big Pond Stag	e Station		
5.00	Point of Rocks	Stage Station	า	
840.00	Additional land	l along perenr	nial water and	l wetlands to enhance riparian area management
1,280	Land within the	e ½ mile corri	dor or betwee	n river segments on the Big Sandy River
4,800	Land within the	e ½ mile corri	dor or betwee	n river segments on the Sweetwater River
1,920	State inholding	in the Buffa	lo Hump WS	A and Sand Dunes WSA
1,920	Land on Pine I	Butte to mana	ge the candic	late plant species Descurainia torulosa

APPENDIX K—WILD AND SCENIC RIVER ELIGIBILITY CRITERIA

K.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 K-16 provides a summary of the suitability reviews for all stream and river segments considered for wild and scenic river eligibility.

K.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.

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%					

Table K	K-1. L	ittle]	Red	Creek	Segment	Review
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*BLM-Administered Public Land

K.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 K-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)					
Total Miles Across BLM Lands 2.6					
Percent BLM Jurisdiction of Waterway Segment Reviewed			100%		

*BLM-Administered Public Land

K.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 K-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)					
Total Miles Across BLM Lands 4.0					
Percent BL	M Jurisdiction of Waterway Segment	100%			

*BLM-Administered Public Land

K.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.

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
I otal Miles Across BLM Lands			FCC ⁽)	8.25	
Percent BLM Jurisdiction of Waterway Segment Reviewed			58%		

Table K-4. Little Red Creek Segment Review

*BLM-Administered Public Land

K.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.

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 ¹ / ₂ miles of creek on north side; ¹ / ₄ 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

Table K-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)
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 BL	M Jurisdiction of Waterway Segment I	Reviewed	37%		

K.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.

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%					

K.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.

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 BL	Percent BLM Jurisdiction of Waterway Segment Reviewed				

Table K-7. East Fork Currant Creek Segment Review

*BLM-Administered Public Land

K.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.

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 BL	Percent BLM Jurisdiction of Waterway Segment Reviewed		100%		

K.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 K-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	Total Miles Across BLM Lands				

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%			

K.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.

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

Table K-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)
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 BL	M Jurisdiction of Waterway Segment I	Reviewed	65%		

K.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 K-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			12.0		
Percent BL	Percent BLM Jurisdiction of Waterway Segment Reviewed		100%		

*BLM-Administered Public Land

K.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.

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

Table K-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)
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 BL	Percent BLM Jurisdiction of Waterway Segment Reviewed				

K.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 K-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 ³ / ₄ 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 BL	M Jurisdiction of Waterway Segment F	Reviewed	45%		

K.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 K-14.	Big	Sandy	River	Segment	Review
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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					
Total Length of Waterway Segment Reviewed (miles)					74.6
Total Miles Across BLM Lands 16.15					
Percent BL	Percent BLM Jurisdiction of Waterway Segment Reviewed 22%				

K.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.

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 BL	M Jurisdiction of Waterway Segment	Reviewed	4%		

K.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

K.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.

K.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.

K.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.

K.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.

K.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 (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) 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.

K.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.

K.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.

K.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.

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.

Table K-16. Summary of Wild and Scenic River Suitability Review

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.

¹Green 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.

²The 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 L—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: **Field Manager**

Date

ASPEN MOUNTAIN COMMUNICATIONS SITE MANAGEMENT PLAN

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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. <u>Terms and Definitions</u>

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. <u>Purpose</u>

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. <u>Site Description</u>

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 SE¹/4SE¹/4 of sec. 22, T. 17 N., R. 104 W., 6th Principal Meridian, Sweetwater County, Wyoming at approximately 41° 25' 50.7" North Latitude and 109° 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. <u>Area Served</u>

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. <u>Access</u>

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. <u>Site History and Development</u>

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. <u>Authority</u>

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. <u>Relationship to Communications Site Leases/Right-Of-Way Grants</u>

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. <u>The Bureau of Land Management</u>

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. <u>Facility Owners and Facility Managers</u>

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. <u>Federal Communication Commission and National Telecommunication and</u> <u>Information Administration – Interagency Radio Advisory Committee</u>

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

<u>Use by Multiple Users</u>

Use of all facilities and improvements by more than one user, known as co-location, <u>will be</u> 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.

<u>V.</u> <u>FEES</u>

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. <u>Unique Resource Considerations at this Communication Site</u>

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. <u>Wiring and Grounding</u>

- 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 bimetallic 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. <u>Communications Equipment</u>

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: <u>http://migratorybirds.fws.gov/issues/towers/comtow.html</u>

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 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. <u>Cables and Transmission Line (Wave Guides)</u>

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. <u>Radiation</u>

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. <u>Sanitary Facilities</u>

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 chainlink (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. <u>Site Maintenance</u>

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. <u>Inspections</u>

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 omnidirectional broadcast antennas in directions of primary population targets.

B. <u>Construction Methods and Resource Protection</u>

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. <u>Construction Inspection</u>

- 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. <u>New or Remodeled/Expanded Buildings</u>

- 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. <u>New or Remodeled/Expanded Towers</u>

- 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. <u>APPENDICES</u>

- A. Location and Site Maps
- B. <u>Authorized Facilities</u>
- C. <u>Site Photographs</u>
- D. Inspection Checklist

APPENDIX A

LOCATION MAP



SITE MAP



APPENDIX B

ASPEN MOUNTAIN COMMUNICATIONS SITE LESSEE/HOLDER FACILITY TABLE

	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

(See associated User's Table on the Website)

APPENDIX C

SITE PHOTOGRAPHS

(See associated Facility Photos on the Website)





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 Iter	ns 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 Act	tion:				
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 M—AIR QUALITY ADAPTIVE MANAGEMENT STRATEGY

M.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.

M.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.

M.1.2 Characterization of Air Resources within the Rock Springs Planning Area

The air analysis included in the Rock Springs Proposed RMP/Final Environmental Impact Statement (EIS) 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 Proposed RMP/Final 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 of the Proposed RMP/Final EIS. 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 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.

M.2 GENERAL CONDITIONS

M.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.

M.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.

M.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.

M.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.

M.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).

M.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.

M.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.

M.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/.

M.5 AIR RESOURCE MANAGEMENT

M.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-bycase 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.

M.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.

M.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.

M.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.

M.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.

M.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.

M.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.

M.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.

M.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.

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. 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.		

 Table M-1. Best Management Practices for Oil and Gas Development

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 NOx, 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 Centr	alized 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 Miscellane	ous 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 N—RECREATION REPORT

N.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.

N.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.

N.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 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.

N.2 RECREATION MANAGEMENT AREA PRESCRIPTIONS

N.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.

N.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.

N.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.

N.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.

N.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.

N.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:

 $Contacts-15\mbox{-}29\mbox{ encounters on travel routes}.$

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.
N.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.

N.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 O—CHAPTER 2 DETAILED MANAGEMENT DECISIONS BY AREA

2.1 APPROVED RMP

Tables 2-3 through 2-12 below provide a detailed description of where management decisions are applied under the Approved Resource Management Plan (RMP). These tables also include overall approximate acreages for each type of management allocation, determination, and designation.

Table 2-3. Areas Proposed for Withdrawal from Mineral Location

Area	Approved RMP
PROPOSED WITHDRAWAL FROM MINERAL LOCATION	
Big Game Migration Corridor Area of Critical Environmental Concern (ACEC)	
Big Sandy Openings ACEC	Х
Boars Tusk	Х
Boars Tusk (90 acres)	
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	Х
Cedar Canyon, LaBarge Bluffs, Tolar, and other significant rock art sites and ½-mile viewshed	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites and three-mile viewshed	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites (viewshed not included)	Х
Cedar Canyon ACEC	
Crookston Ranch – Jack Morrow Hills (JMH)	
Crookston Ranch Historic Site	Х
East Sand Dunes – Red Lake ACEC	
Elk birthing areas (northern) – JMH	
Emmons Cone	
Four J Basin Portion of the Pine Mountain Management Area	
Greater Red Creek ACEC	
Greater Red Creek ACEC – Currant Creek Watershed	
Greater Red Creek ACEC – Red Creek Watershed	
Greater Sand Dunes ACEC (western portion) – JMH	
Greater Sand Dunes ACEC	
Killpecker Sand Dunes Special Recreation Management Area (SRMA)	Х
Lands with Wilderness Characteristics	
Little Firehole's Cottonwood Canyon area	
Little Mountain ACEC	Х
Monument Valley ACEC	
Monument Valley Management Area	

Area	Approved RMP
Oregon Buttes ACEC	
Pilot Butte	
Pine Springs ACEC	Х
Pinnacles ACEC	Х
Pinnacles Geologic Feature	Х
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	Х
Special status plant known locations (limber pine exception)	Х
Special Status Plants ACEC	Х
Steamboat Mountain ACEC	Х
South Pass Historic Landscape ACEC	Х
South Pass Summit – JMH	
South Wind River ACEC	Х
Sweetwater Bridge and Guard Station campgrounds	Х
Tri-Territory Marker	Х
White Mountain Petroglyphs ACEC	Х
Wind River Front Special Recreation Management Area (SRMA) (suitable sites along the river)	
Within five miles of National Historic Trails (NHT)	
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	
Wilderness Study Areas (WSA)	
Total Acres	900,204

Table 2-4. Fluid Mineral Restrictions

Area	Approved RMP
CLOSED TO FLUID MINERAL LEASING	
Aquifer recharge area for the towns of Superior and McKinnon	Х
Big Game Migration Corridor ACEC	
Big Sandy Openings ACEC	Х
Boars Tusk	

Area	Approved RMP
Cedar Canyon ACEC	
Crookston Ranch	
East Sand Dunes – Red Lake ACEC	
Greater Red Creek ACEC	
Greater Red Creek ACEC, Currant Creek Portion	
Greater Red Creek ACEC, Red Creek Portion	
Greater Red Creek ACEC, Salt Wells Portion	
Greater Red Creek ACEC, Sage Creek Portion	
Greater Red Creek ACEC, Sugarloaf Basin Portion	
Greater Sand Dunes ACEC, Eastern portion within Area 3 (6,750 acres) – JMH	
JMH Area 3 (216,343 acres)	Х
JMH Area 3 (184,064 acres)	
Killpecker Sand Dunes SRMA	Х
Lands with Wilderness Characteristics	
Little Mountain ACEC	Х
Mechanically Mineable Trona Area	Х
Monument Valley ACEC (federal sections)	
National Historic Trails—5 miles from each side of the trail	
Natural Corrals ACEC	Х
Oregon Buttes ACEC	Х
Pine Springs ACEC	Х
Pinnacles Geographic Area	
Pinnacles Geologic Feature (JMH)	
Portions of Little Mountain Area	
South Pass Historic Landscape ACEC	
South Wind River ACEC	Х
Steamboat Mountain ACEC (less the area that is no surface occupancy [NSO]) – JMH	Х
Sweetwater County Growth Management Area	X
Tri-Territory marker	Х
Wild and Scenic River, Wild Classification (1/2 mile)	

Area	Approved RMP
Wild and Scenic River, Scenic Classification (½ mile)	Х
Wild and Scenic River, Recreational Classification (1/2 mile)	Х
Wilderness Study Areas	Х
Wind River Front (Eastern Unit)	Х
Total Acres	1,076,039
NO SURFACE OCCUPANCY (NSO)	
100-year floodplains, wetlands, and riparian areas	
14-Mile Recreation Area	
Active raptor nests (within ½ mile)	
Active and historic raptor nests (within one mile)	
Adobe Town and Desolation Flat/Desolation Point Paleontological sites	
Areas of shallow, unconfined aquifers	
Big game crucial winter ranges, parturition areas, connectivity corridors and transitional habitats	
Big game migration corridors (within ½ mile)	
Big Sandy River and ½-mile buffer (1.5 miles)	
Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon, the Bozovich site complex, or other areas with high cultural site density	
Boars Tusk (90 acres)	Х
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, ½-mile viewshed	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar White Mountain Petroglyphs, and other significant rock art sites	Х
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed	
Crookston Ranch	Х
Crookston Ranch + 100-foot buffer	
Developed recreation sites, ¼ mile	Х
Developed recreation sites, 3 miles or visual horizon	
Emmons Cone	Х
Four J Basin Portion of Pine Mountain Management Area	
Greater Red Creek ACEC, Currant Creek Portion	
Greater Sand Dunes ACEC (developed recreation sites and ORV parking lot)	

Area	Approved RMP
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	
Indian Gap + 100-foot buffer	
JMH Area 3, approximately 35,500 acres along the perimeter	
Killpecker Sand Dunes SRMA	
Known human burial sites	Х
Little Firehole's Cottonwood Canyon	
Natural Corrals	Х
Natural Corrals ACEC	Х
North and South Table Mountains	
Oregon and Mormon Pioneer National Historic Trails SRMA	
Oregon Buttes ACEC	
Parting-of-the-Ways Historical Site	Х
Pilot Butte	Х
Pine Butte	
Pine Mountain escarpment and toe slopes	
Pine Mountain Management Area, Salt Wells portion	
Pine Springs	Х
Pine Springs ACEC	
Pinnacles Geographic Area along perimeter –within JMH Area 3 (1,200 acres)	
Pinnacles Geologic Feature	
Portions of Little Mountain Area	
Raptor nesting (occupied nests, cliffs, bluffs, roosts, outcrops and pinnacles)	
Recreation sites + ¼-mile buffer	
Riparian areas, wetlands, perennial streams, 100-year floodplains and the area within 1,320 feet (1/4 mile) of these areas; and within 500 feet of the edge of the inner gorge of large ephemeral drainages	
Sensitive resources – JMH	Х
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	
South Pass Historic Landscape (area visible within 1-mile buffer of Lander Cutoff and area visible within 3-mile buffer of Oregon Trail)	
Special Status Plant Species ACEC	Х

Area	Approved RMP
Special Status Plant Species – known locations	
Special Status Plant Species – known and potential habitat (limber pine exception)	
Steamboat Mountain ACEC	Х
Sugarloaf Basin Management Area	
Town of Superior water recharge area	
White Mountain Petroglyphs ACEC	Х
Wild horse herd viewing area + 1/2-mile buffer	
Wind River Front (Eastern Unit)	
Within 100 feet of known locations of Special Status plant species	
Within 500 feet of eligible historic roads and trails	Х
Total Acres	215,437
CONTROLLED SURFACE USE (CSU)	
ACECs + expansions – JMH	
Active raptor nests (within 1/2 mile)	
Aquifer recharge area for the towns of Superior and McKinnon	
Areas adjacent to WSAs – JMH	
Areas around or adjacent to local communities or occupied dwellings.	
Areas with low reclamation potential (as per Natural Resources Conservation Service soil rating)	Х
Big Game Migration Corridor	Х
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	Х
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain Petroglyphs viewsheds, ½-mile setting buffer (excluding sites)	Х
Continental Divide National Scenic Trail and Connecting Side Trail	
Continental Divide Snowmobile Trail, Continental Divide National Scenic Trail, South Pass Cross Country Ski Trail, 1/4 mile of trail	
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	-
Dry Sandy Swales	Х
Farson Fossil Fish Beds	Х
Highly erodible soils	Х
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	

Area	Approved RMP
JMH Area 2	Х
Mechanically Mineable Trona Area	
Monument Valley	
National Historic Trails—within 5 to 15 miles from each side of the trail	
National Trail Management Corridor (5 miles)	Х
Pine Mountain	
Pine Mountain Management Area	
Portion of White Mountain – JMH	
Portions of Little Mountain Area	
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	
Raptor nests:	
• Ferruginous hawk – 1/2 mile	
Bald eagle – 1 mile	x
Golden eagle – ¼ mile	X
Burrowing owl – ¼ mile	
General raptor – ¼ mile	
Red Desert Management Area	
Red Desert Watershed Management Area – JMH	
Sage Creek Watershed	
Slopes > 20% – JMH	
Slopes greater than 25%	
Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain	Х
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)	
South Pass Historic Landscape ACEC	Х
Special status plant species potential habitat – JMH	
Steamboat Mountain ACEC	
Steamboat Mountain Crucial Overlap	
Steamboat Mountain Management Area – JMH	
Sugarloaf Basin Management Area	Х

Area	Approved RMP
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	
View from Fontenelle Reservoir	
Visual Resource Management (VRM) Class II Lands	
Wild and Scenic Rivers (all classifications)	Х
Wind River Front (Western Unit)	
Within ¼ mile of Sweetwater River (Recreational part, 3.4 miles)	
Within ¼ mile of the Overland and Cherokee Trails	
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	х
Total Acres	1,116,266
SEASONAL RESTRICTIONS	
Big Game Birthing Areas (May 1 to June 30)	Х
Big Game Crucial Winter Range (November 15 to April 30)	
Eastern Portion of the Greater Sand Dunes Area—crucial big game winter ranges, big game birthing areas, and winter concentration areas	Х
Elk Calving Areas	
Fisheries: ¼-mile riparian area buffer, March 15 to July 31 and September 15 to November 30	
Mountain plover active nests (¼-mile buffer; April 10-July 10)	Х
Mountain plover aggregation areas (¼-mile buffer; April 10-July 10)	
Mountain plover aggregation areas (100-foot buffer; April 10-July 10)	
Raptor nests (occupied), ½-mile buffer	
Raptor nests (occupied) ¹ / ₂ - to 1-mile buffer	
Raptor nests: active and historic, ¼- to 2 ½-mile buffer	Х
Raptor nests: active, historic and associated feeding grounds, 2-mile buffer	
Steamboat Mountain ACEC—Elk and mule deer crucial winter and parturition habitats, raptor nesting and associated feeding areas	Х
Total Acres	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	Hydrocarbon Development Potential (acres)						
Requirement	None	Very Low	Low	Moderate	High	Very High	Total ³
APPROVED 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

¹All 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.

²Although closed to leasing and related oil and gas activity, any other surface disturbing or disrupting use would follow the surface disturbance prescriptions. ³Acreage 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

Eluid Minoral Lassa Conditional Paguiromant	Hydrocarbon Development Potential					
Fluid Milleral Lease Conditional Requirement	None	Very Low	Low	Moderate	High	Total ³
APPROVED 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

¹All 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.

²Although closed to leasing and related oil and gas activity, any other surface disturbing or disrupting use would follow the surface disturbance prescriptions.

³Acreage values do not include areas that have not been assessed.

Table 2-7. Areas Closed to Solid Leasable Minerals

Area	Approved RMP
CLOSED TO COAL LEASING AND DEVELOPMENT	
Aquifer recharge area for town of Superior	
Aquifer recharge area for towns of Superior and McKinnon	
Areas outside the coal occurrence and development potential area but within the planning area	
Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex	
Big game crucial winter ranges, parturition areas, migration corridors and transitional habitats	
Big Game Migration Corridor ACEC	
Big Sandy Openings ACEC	Х
Boars Tusk	Х
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	
Cedar Canyon ACEC	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed	
City of Rock Springs Expansion Area	Х
Crookston Ranch Site	Х
East Sand Dunes – Red Lake ACEC	
Greater Red Creek ACEC	
Greater Red Creek ACEC (Currant Creek Watershed)	
Greater Sand Dunes ACEC (western portion)	
Known human burial sites	
Lands with Wilderness Characteristics	
Little Firehole's Cottonwood Canyon	
Little Mountain ACEC	Х
Monument Valley ACEC	
North Fork Vermillion Creek Drainage (200-foot buffer of waterway)	Х
Oregon Buttes ACEC	X
Pine Springs ACEC	X
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	Х

Area	Approved RMP
Raptor nest sites (in JMH area) with ¼-mile buffer	
Shallow unconfined aquifers	
Soils that have any of the following characteristics:	
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	
Special Status Plants ACEC	Х
South Pass Historic Landscape ACEC	
South Wind River ACEC	Х
Sweetwater County Growth Management Area	Х
Tri-Territory Marker	Х
Wild and Scenic River segments (1/2-mile buffer)	
Wind River Front SRMA	Х
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	
Within 1 mile of raptor active and historic nest sites	
Within 3 miles of developed recreation sites	
WSAs	Х
Total Acres	1,167,330
CLOSED TO OIL SHALE LEASING AND DEVELOPMENT	
Aquifer recharge area for towns of Superior and McKinnon	
Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex	
Big game crucial winter ranges, parturition areas, migration corridors and transitional habitats	
Big Game Migration Corridor ACEC	
Big Sandy Openings ACEC	Х

Area	Approved RMP
Boars Tusk in Greater Sand Dunes ACEC	Х
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	
Cedar Canyon ACEC	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, three-mile viewshed	
Crookston Ranch Site	Х
East Sand Dunes – Red Lake ACEC	
Expansion Areas for Rock Springs and Green River Cities	Х
Greater Red Creek ACEC	
JMH Area 3	Х
Killpecker Sand Dunes SRMA	Х
Known human burial sites	
Lands with Wilderness Characteristics	
Little Firehole's Cottonwood Canyon	
Little Mountain ACEC	Х
Mechanically Mineable Trona Area	Х
Monument Valley Management Area	
National Historic Trails	
Oregon Buttes ACEC	Х
Pine Springs ACEC	Х
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	
Red Desert Management Area	
Shallow unconfined aquifers	
Soils that have any of the following characteristics:	
Wind erodibility index greater than 100	
Saline	
• Sodic	
Saline-sodic	
• 2:1 clays	
Sand dunes	
Slopes greater than 25%,	

Area	Approved RMP
Slumps and creeps and/or rutting	
Areas that are difficult to reclaim	
Special Status Plants ACEC	Х
South Pass Historic Landscape ACEC	Х
South Wind River ACEC	Х
Steamboat ACEC	
Sweetwater County Growth Management Area	Х
Tri-Territory Marker	Х
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	
Within ¼ mile of historic trails	Х
Within ¼ mile of Wild and Scenic River segments	Х
Within 3 miles of developed recreation sites	
WSAs	Х
Total Acres	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	
Big game crucial winter ranges, parturition areas, migration corridors and transitional habitats	
Big Game Migration Corridor ACEC	
Big Sandy Openings ACEC	Х
Boars Tusk	Х
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	
Cedar Canyon ACEC	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, three-mile viewshed	
City of Rock Springs Expansion Area	
Crookston Ranch Site	Х
East Sand Dunes – Red Lake ACEC	
Greater Red Creek ACEC	
Greater Red Creek ACEC (Currant Creek Watershed)	
Greater Sand Dunes ACEC (western portion)	

Area	Approved RMP
Important rock art sites, other important cultural resource values, and important geologic and ecologic features and ½-mile buffer	
Known human burial sites	
Lands with Wilderness Characteristics	
Little Firehole's Cottonwood Canyon	
Monument Valley ACEC	
Oregon Buttes ACEC	Х
Pine Springs ACEC	Х
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	
Prospecting Permits within the Known Sodium Leasing Area	
Raptor nest sites (in JMH area)	
Shallow unconfined aquifers	
Soils that have any of the following characteristics:	
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	
South Pass Historic Landscape ACEC	
South Wind River ACEC	Х
Special Status Plants ACEC	Х
Sweetwater County Growth Management Area	Х
Tri-Territory Marker	Х
Wild and Scenic River segments (1/2-mile buffer)	
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	
Within ¼ mile of significant rock art sites	
Within 1 mile of raptor active and historic nest sites	

Area	Approved RMP
Within 3 miles of developed recreation sites	
WSAs	Х
Total Acres	569,554

Table 2-8. Areas Closed to Mineral Material Sales/Disposals

Area	Approved RMP
CLOSED TO MINERAL MATERIAL SALES/DISPOSALS	
14-Mile Recreation Area	
Areas with high cultural site density such as Blue Point, Blue Forest, Adobe Town Rim, Cedar Canyon and the Bozovich site complex	
Big game crucial winter range, parturition areas, and migration corridors (within ½ mile)	
Big Game Migration Corridor ACEC	
Big Sandy Openings ACEC	Х
Big Sandy River and ½-mile buffer (1.5 miles)	
Boars Tusk + 1,400 acres of BLM-administered lands surrounding the area	
Boars Tusk	Х
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	
Cedar Canyon Petroglyph rock art site and the surrounding viewshed (within 3 miles)	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites	Х
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites and ½-mile viewshed	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed	
Crookston Ranch	Х
Developed recreation sites (within ¼ mile)	
Developed recreation sites, three-mile buffer or visual horizon	
Dry Sandy Swales	Х
East Sand Dunes – Red Lake ACEC	
Emmons Cone	
Four J Basin	
Greater Red Creek ACEC	
Greater Red Creek ACEC, Currant Creek Watershed	

0-17

Area	Approved RMP
Greater Red Creek ACEC, Red Creek Portion	
Greater Red Creek ACEC, Salt Wells Portion	
Greater Red Creek ACEC, Sugarloaf Basin Portion	
Greater Sand Dunes ACEC	Х
Human Burial Sites	Х
Killpecker Sand Dunes SRMA	Х
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	
Little Firehole's Cottonwood Canyon	
Little Mountain ACEC	Х
Monument Valley ACEC	
National Historic Trails (within 5 miles)	
Natural Corrals	
Natural Corrals ACEC	Х
North and South Table Mountains	
Occupied Raptor Nests	
Oregon and Mormon Pioneer National Historic Trails SRMA	
Oregon Buttes ACEC	Х
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	
Parting-of-the-Ways Historical Site	
Pilot Butte	
Pine Butte	
Pine Springs	Х
Pine Springs ACEC	Х
Pinnacles ACEC	Х
Pinnacles Geologic Feature	Х
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	Х
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	
Sand Dunes ACEC	

Area	Approved RMP
Shallow, unconfined aquifers	
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	
South Pass Historic Landscape ACEC	
South Pass Historic Landscape ACEC (visible portion) – JMH	
South Pass Summit – JMH	
South Wind River ACEC	Х
Special Status Plant Species ACEC	Х
Steamboat Mountain ACEC	Х
Tri-Territory Marker	Х
White Mountain Petroglyphs ACEC	Х
Wild Horse Viewing Area	Х
Within 1/2 mile of Wild and Scenic Rivers	Х
Within 100 feet of known locations of Special Status plant species	X
WSAs	Х
Total Acres	884,906

Table 2-9. Visual Resource Management Classifications (acres)

VRM Classification	Approved RMP
Class I	225,736
Class II	1,301,004
Class III	149,413
Class IV	1,929,258

Table 2-10. Rights-of-Way Limitations

Area	Approved RMP
EXCLUSION AREAS	
Big Game Migration Corridor ACEC	
Big Sandy river (1/2-mile wide corridor, 1.5 mile long)	
Big Sandy Openings ACEC	Х
Boars Tusk	Х
Boars Tusk (90 acres)	
Boyer Ranch House (formerly LaClede Stage Station) and Dug Springs Stage Station on the Overland Trail	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites and ½-mile viewshed	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain, and other significant rock art sites	Х
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain Petroglyphs, and other significant rock art sites, 3-mile viewshed	
Crookston Ranch	Х
Crookston Ranch ACEC	Х
Dry Sandy Swales	Х
East Sand Dunes – Red Lake ACEC	
Greater Red Creek ACEC	
Grater Red Creek ACEC – Currant Creek Watershed Portion	
Grater Red Creek ACEC – Red Creek Portion	
Greater Red Creek ACEC – Red Creek Portion from the Red Creek escarpment south to Richards Gap (10-year timeframe)	
Greater Red Creek ACEC, Salt Wells Portion and Four J Basin (formerly Pine Mountain Management Area)	
Greater Red Creek ACEC, Sugarloaf Basin Portion (formerly Sugarloaf Basin Management Area)	
Greater Sand Dunes ACEC (eastern portion)	
Indian Gap – JMH	
Known human burial sites	Х
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	
Little Firehole's Cottonwood Canyon area	
Native American Burial Sites	X
Natural Corrals	Х

Area	Approved RMP
Natural Corrals ACEC	Х
Oregon Buttes ACEC – JMH	
Oregon Buttes ACEC	Х
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	
Pine Butte	
Pinnacles Geologic Feature (JMH)	
Pinnacles ACEC	Х
Pinnacles Geologic Feature	
Pine Springs ACEC	Х
Prehistoric Quarry Sites (48SU1263 and 48SU7632)	
Red Desert Watershed Management Area (windows eliminated, overhead powerlines prohibited)	
South Pass Historic Landscape ACEC (visible portion)	
South Pass Historic Landscape ACEC	Х
South Wind River ACEC	Х
Special Status plant species' known or potential habitat	Х
Special Status Plant ACEC	Х
Steamboat Mountain ACEC	Х
Sweetwater River Wild, Scenic and Recreational Segments (1/2-mile corridor, 9.7 miles long)	Х
Tri-Territory Marker	Х
White Mountain Petroglyphs ACEC	Х
Wild and Scenic Rivers	Х
WSAs	Х
Total Acres	921,059
AVOIDANCE AREAS	
14-Mile Recreation Area	
Aquifer recharge area for towns of Superior and McKinnon	Х
Boars Tusk	
Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, White Mountain, and other significant rock art sites, setting only	X
Connectivity area – JMH	

Area	Approved RMP
Crookston Ranch	
Dry Sandy Swales (¼-mile buffer)	
Emmons Cone	Х
Expansion era roads + ¼-mile buffer – JMH	
Farson Fossil Fish Beds	Х
Greater Red Creek ACEC (area outside of individual watersheds)	
Greater Sand Dunes ACEC (and lands within 1 mile or visual horizon)	Х
Greater Sand Dunes ACEC (eastern portion)	-
Historic trails (¼-mile buffer)	
I-80 Point of Rock to Green River (for major utility lines)	
Killpecker Sand Dunes SRMA	Х
Little Firehole's Cottonwood Canyon area	
Little Mountain ACEC	Х
Monument Valley (erosive soil areas and slopes >25%)	
Monument Valley (erosive soil areas and slopes >20%)	
National historic trails + ¼-mile buffer – JMH	
National historic trails within 5 to 15 miles	
National Trail Management Corridor (5 miles)	Х
North and South Table Mountains	
Oregon and Mormon Pioneer National Historic Trails SRMA	
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	
Pilot Butte	Х
Pine Mountain Management Area	Х
Pine Springs	Х
Pine Springs ACEC	
Red Desert Management Area	
Some basin big sagebrush/lemon scurfpea areas along the base of Steamboat Mountain	
South Pass Historic Landscape ACEC (non- visible portion)	
Special Status Plants (known sites)	

Area	Approved RMP
Steamboat Mountain ACEC	
Sugarloaf Basin	
Sugarloaf Basin Management Area	Х
West Sand Dunes Archaeological District	
Wind River Front SRMA (Eastern Unit)	Х
Within ¼ mile of the Overland and Cherokee Trails	
Within 1/2 mile of Horse Herd Viewing Areas	Х
Within 100 feet of known locations of special status plant species	Х
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.	Х
Within 500 feet of eligible Historic Roads and Trails	Х
Total Acres	1,047,929

Table 2-11. Off-Highway Vehicle Area Designations (acres)

OHV Designation	Approved RMP
Open	12,831
Closed	225,890
Limited to Designated Roads and Trails	3,367,223
Limited to Existing Roads and Trails	0

Table 2-12. Special Designations and Management Areas

Special Designation Area	Approved RMP
AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) (ACRES)	
Big Game Migration Corridor ACEC	0
Big Sandy Openings ACEC	1,994
Cedar Canyon ACEC	0
East Sand Dunes – Red Lake ACEC	0
Greater Red Creek ACEC	0

Special Designation Area	Approved RMP	
Greater Sand Dunes ACEC	26,746	
Little Mountain ACEC	115,573	
Monument Valley ACEC	0	
Natural Corrals ACEC	1,107	
Oregon Buttes ACEC	3,441	
Pine Springs ACEC	6,483	
Pinnacles ACEC	1,344	
South Pass Historic Landscape ACEC	53,772	
South Wind River ACEC	281,104	
Special Status Plant Species ACEC	4,469	
Steamboat Mountain ACEC	439,081	
White Mountain Petroglyphs ACEC	22	
Total Acres	935,135	
MANAGEMENT AREAS AND OTHER FEATURES (ACRES)		
Monument Valley Management Area	0	
Pine Mountain Management Area	62,675	
Pinnacles Geographic Area	0	
Red Desert Management Area	0	
Red Desert Watershed Management Area	0	
Red Desert Watershed Management Area	0	
Sugarloaf Basin Management Area	87,149	
West Sand Dunes Archaeological District	0	
Total Acres	149,824	
SPECIAL RECREATION MANAGEMENT AREAS (SRMA) (ACRES)		
Continental Divide National Scenic Trail SRMA	56	
Continental Divide Snowmobile Trail SRMA	87	
Green River SRMA	0	
Killpecker Sand Dunes SRMA	12,802	
Little Mountain SRMA	40,455	
Oregon and Mormon Pioneer National Historic Trails SRMA	0	

Special Designation Area	Approved RMP	
Red Creek Badlands SRMA	0	
Wind River Front SRMA	85,335	
Total Acres	138,605	
WILD AND SCENIC RIVERS (MILES)		
Recreation Designation	3.4	
Scenic Designation	0.5	
Sweetwater Wild and Scenic River	9.7	
Wild Designation	5.8	
WILDERNESS STUDY AREAS (WSA) (ACRES)		
Adobe Town WSA	52,860	
Alkali Draw WSA	17,910	
Buffalo Hump WSA	9,480	
Devil's Playground WSA	16,050	
East Sand Dunes WSA	12,800	
Honeycomb Buttes WSA	42,310	
Oregon Buttes WSA	5,860	
Red Creek Badlands WSA	8,690	
Red Lake WSA	9,550	
Sand Dunes WSA	28,330	
South Pinnacles WSA	10,910	
Twin Buttes WSA	8,170	
Whitehorse Creek WSA	5,040	
Total Acres	227,960	

APPENDIX P—MAPS

Map 1. Proposed Withdrawals

- Map 2. Fluid Mineral Leasing
- Map 3. Solid Leasable Minerals
- Map 4. Salable Minerals
- Map 5. Visual Resource Management

Map 6. Rights-of-Way

- Map 7. Off-Highway Vehicles
- Map 8. Special Designations and Management Areas

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See Map 3-18 for areas of existing withdrawal to mineral entry

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM

Map 2: Fluid Mineral Leasing



No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM





Map does not contain or depict BLM Sage-Grouse Land Use Plans

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM

Map 5: Visual Resource Management




Map does not contain or depict BLM Sage-Grouse Land Use Plans

No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM

UTM NAD83 Zone 12N

Map 7: Off-Highway Vehicles



UTM NAD83 Zone 12N



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UTM NAD83 Zone 12N

APPENDIX Q—BIOLOGICAL ASSESSMENT AND BIOLOGICAL OPINION

BIOLOGICAL ASSESSMENT

Q.1 INTRODUCTION

This Biological Assessment (BA) analyzes the potential effects of changes to existing management identified in the Proposed RMP of the Bureau of Land Management (BLM) Rock Springs Planning area on threatened or endangered species listed, proposed, or candidate for listing under the federal Endangered Species Act (ESA) or their designated or critical habitat.

In accordance with the ESA and regulatory guidance, we consider:

- Only those organisms that appear on the official species list as seen in Table I-1, and
- Only those species under the regulatory jurisdiction of the U.S. Fish and Wildlife Service (USFWS).

We consider all listed, candidate, and proposed species that may be present in the field office. We will also consider the effects of the proposed plan on the primary constituent elements and/or physical and biological features of designated critical habitat that is likely to be affected by the proposed actions.

This analysis is based on the best scientific and commercial data available at the time this document was written. This includes information such as data collected from BLM databases, vegetation analyses, and direct surveys in the field, the most recent and appropriate scientific research or species information, as well as direct observations by biologists in the field.

This BA analyzes the potential impacts on threatened and endangered plant, fish, and animal species that would result from the implementation of the new Rock Springs RMP. Four potential alternatives are analyzed in the EIS. This BA analyzes the BLM Agency Proposed RMP.

Q.2 PROJECT HISTORY

The original RMP for this area was the Green River Resources Management Area for what was to become the Rock Springs Field Office. That plan was finalized and signed March of 1996. Because the plan was becoming dated and in need of updating, the Rock Springs Field Office began developing and analyzing a new plan in 2010.

Q.2.1 Purpose and Need

This BA is prepared for the Proposed RMP that describes the comprehensive analysis of alternatives for the planning and management of lands and resources administered by the BLM in the Rock Spring Field Office area in Wyoming. The public lands and federal mineral estate within the Rock Spring Field Office Resource Management planning area are the subject of the planning effort and this document. This document is a component of the Proposed RMP and is prepared in compliance with the National Environmental Policy Act (NEPA) which requires that an environmental impact statement be prepared for any federal actions that may significantly affect the human environment.

Under provisions of the federal Endangered Species Act of 1973, as amended (16 USC Section 1531 et seq.), federal agencies are directed to conserve threatened and endangered species and the habitats in which these species are found. Section 7 (c) of the ESA requires the BLM Rock Spring Field Office to complete a BA to determine the effects of implementing the Proposed RMP on listed and proposed species, based on compliance with Section 102 of NEPA. Federal agencies are required to consider, avoid, or prevent adverse

impacts to fish and wildlife species. Federal agencies are also required to ensure actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of endangered and threatened species or their critical habitat. The ESA requires action agencies, such as the BLM, to consult or confer with the USFWS when there is discretionary federal involvement or control over the action and to ensure resources are afforded adequate consideration and protection. Formal consultation becomes necessary when the action agency requests consultation after determining the proposed action is likely to adversely affect listed species or critical habitat, or the aforementioned federal agencies do not concur with the action agency's finding (USFWS 1998). In addition, under the 1994 Memorandum of Understanding (MOU) and the 2000 Memorandum of Agreement (MOA) among the BLM, U.S. Forest Service (USFS), USFWS, and National Marine Fisheries Service (NMFS), all four agencies agreed to promote the conservation of candidate and proposed species (Special Status) and streamline the Section 7 consultation and coordination process.

The objective of this programmatic biological assessment is to provide documentation and analysis for the proposed action to meet the federal requirements and agreements set forth among the federal agencies. It addresses federally listed threatened and endangered, candidate, and proposed species and has been prepared under the 1973 ESA Section 7 regulations, in accordance with the 1998 procedures set forth by USFWS and NMFS, and in accordance with the 1994 and 2000 MOU and MOA, respectively. The Rock Spring Field Office, in coordination with the USFWS wildlife biologist, conducted an analysis regarding the effects of the Proposed RMP on listed species. Site-specific evaluations will be conducted for activities authorized under the RMP and consultation or conference would occur with the USFWS for those activities that may affect threatened, endangered, candidate or proposed species. In addition, BLM would evaluate site-specific activities that may affect BLM Wyoming Sensitive Species (Sensitive Species), in compliance with BLM Manual 6840. This BA will not address Sensitive Species; these are addressed Proposed RMP.

As part of this biological assessment, BLM requests formal consultation for proposed actions that will lead to water depletion (consumption) in the Platte and/or Colorado River systems. This consultation is required for the four federally listed species of fish in the upper Colorado River system: the endangered Colorado pikeminnow (*Ptychocheilus lucius*), the endangered humpback chub (*Gila cypha*), the endangered bonytail chub (*Gila elegans*), the endangered razorback sucker (*Xyrauchen texanus*) and their designated critical habitat; and six federally listed species in the Platte River system: the endangered whooping crane (*Grus americana*) and its designated critical habitat, endangered interior least tern(*Sterna antillarum*), threatened piping plover (*Charadrius melodus*) and its designated critical habitat, endangered pallid sturgeon (*Scaphirhynchus albus*), and the threatened Western prairie fringed orchid (*Platanthera praeclara*).

This BA considers species present in the action area and addresses those species that may be affected by the BLM's RMP implementation (including actions directly or indirectly causing modifications to the land, water, or air; see 50 CFR 402.02). This primarily includes species present within the Rock Springs planning area. However, the BA includes species outside of the immediate planning area as appropriate. For example, Sections Q.3 and Q.4 include species that are not present in the planning area, such as species that use habitats associated with downstream waters directly connected to the planning area. These include species for which management actions undertaken in the planning area could have measurable impacts to critical habitat through water depletions. Consequently, this BA includes initial biological effects determinations for species not present in the RMP planning area (see Table Q-1).

The nature and degree of potential effects to species considered in this BA may be influenced by predicted but uncertain future consequences of climate change. In some cases, consequences of future climate change may present new or additional threats to ongoing recovery and management of ESA-listed species. Measurable impacts to ESA-listed species are evaluated using the available information outlined in Appendix T. Where potential impacts of climate change are anticipated, those were specifically considered and discussed within the identified action area. Potential contributions to greenhouse gas emissions

resulting from RMP implementation are further addressed in Appendix T (Section T.13 – Air Quality: Greenhouse Gases and Climate Change).

Q.2.2 Analysis Area

The Rock Springs planning area (Map 1.1) includes approximately 3.5 million acres of BLM administered surface land and 3.6 million acres of BLM-administered mineral estate in portions of Lincoln, Sweetwater, Uinta, Sublette, and Fremont counties in southwestern Wyoming. The Rock Springs Field Office administers a variety of programs including mineral exploration and development, renewable energy, wildlife habitat, outdoor recreation, wild horses, livestock grazing, and historic trails. The planning area includes 13 Wilderness Study Areas (WSA), 10 areas of critical environmental concern (ACEC), five special recreation management areas (SRMA), and a variety of other areas where specific management prescriptions may be developed.

The present list of threatened, endangered, proposed and candidate species and their designated critical habitats was accessed from the USFWS Environmental Conservation Online System website on May 11, 2018.

General management prescriptions for each resource activity are provided in the Final EIS which will be sent to the USFWS under a separate cover. Refer to Final RMP/EIS document for specific resource management prescriptions under the Proposed RMP (Volume 1, Chapter 2).

Q.2.3 Description of Changes to Existing Management Identified in the Proposed Land Use Plan Revision

The RMP revision/EIS for the Rock Springs Field Office provides management directions for a variety of programs, including physical resources, mineral resources, fire and fuels, biological resources, heritage and cultural resources, land resources, livestock, recreation, special designations, and socioeconomics. The specific management goals, objectives and actions can be found in Chapter 2 of the Proposed RMP. Table I-1 below lists the USFWS threatened, endangered, or proposed species that are being evaluated for this BA and the initial Biological Determination (NE – No Effect; NLAA – Not Likely to Adversely Affect; LAA – Likely to Adversely Affect; ND – No Determination [candidate species]), by program, as identified in the Proposed RMP. The determination in the table indicates that some actions within each program may have an effect; it does not necessarily indicate that the entire program would affect a threatened or endangered species. Please refer to the effects determination for each species in the body of this document for identification of specific sections of the program that would have an effect.

Program	Species/Critical Habitat									
	Canada Lynx	Grizzly Bear	North American Wolverine	Colorado River Species	Platte River Species	Western Yellow- billed Cuckoo	Monarch Butterfly	Ute ladies'- tresses	Whitebark Pine	
Physical Resources	NE	NE	NE	NE	NE	NE	ND	NLAA	NE	
Mineral Resources	NE	NE	NE	LAA	LAA	NLAA	ND	NLAA	NE	
Fire and Fuels	NLAA	NLAA	NLAA	NE	NE	NE	ND	NLAA	NE	

Table I-1. Initial Biological Determinations

	Species/Critical Habitat									
Program	Canada Lynx	Grizzly Bear	North American Wolverine	Colorado River Species	Platte River Species	Western Yellow- billed Cuckoo	Monarch Butterfly	Ute ladies'- tresses	Whitebark Pine	
Biological	NE	NE	NE	NE	NE	NLAA	ND	NLAA	NE	
Cultural	NE	NE	NE	NE	NE	NE	ND	NLAA	NE	
Land	NLAA	NE	NE	NE	NE	NLAA	ND	NLAA	NE	
Livestock Grazing	NLAA	NLAA	NLAA	LAA	LAA	NLAA	ND	NLAA	NE	
Recreation	NLAA	NE	NE	NE	NE	NLAA	ND	NLAA	NE	
Special Designations	NE	NE	NE	NE	NE	NLAA	ND	NLAA	NE	
Socioeconomics	NE	NE	NE	NE	NE	NE	ND	NE	NE	

Q.3 SPECIES CONSIDERED IN THE ANALYSIS

This BA provides detailed analyses of all federally listed (endangered or threatened) species, proposed species, and designated or proposed critical habitat that may be affected by the actions in the Proposed RMP. Development of this BA was guided by the regulations on Interagency Cooperation (Section 7 of the ESA) in 50 CFR Part 402 and BLM Manual 6840 and additional interagency coordination with the USFWS.

Q.3.1 Canada Lynx (Lynx canadensis)—Threatened

Species/Habitat Description

Canada lynx are medium-sized cats with an average adult male weighing ten kilograms (22 lb.) and measuring eighty-five centimeters (33.5 in.) in length, including the tail. Adult females average slightly smaller weighing 8.5 kilograms (19 lb.) and measuring eighty-two centimeters (32 in.) in length, including the tail. Canada lynx are distinguished by long tufts on their ears, as well as large, well-furred paws, and a short, black-tipped tail. During the summer months, their pelage is reddish to gray-brown; whereas in winter, their pelage is more grayish-brown mixed with buff or pale brown with grayish-white or buff-white fur on their torso, legs, and feet (USFWS 2005, USFWS 2012c).

Canada lynx inhabit forests with cold, snowy winters that offer snowshoe hare (*Lepus americanus*) as the primary prey base. In North America, these forests are classified as boreal forests (taiga) consisting mainly of cold tolerant mixed conifers; primarily spruce (*Picea spp.*) and fir (*Abies spp.*) (USFWS 2005). Precipitation is mainly in the form of snow. Snow conditions are an important factor in the location of Canada lynx since they are well adapted to surviving cold winters in deep snow. Canada lynx lives in the boreal forests of North America from Alaska to Newfoundland, descending into the lower 48 states in northern New England (Maine, New Hampshire, New York, and Vermont), the Western Great Lakes region (Michigan, Minnesota, and Wisconsin), the Pacific Northwest (Oregon, Utah, and Washington), and the Rocky Mountains (Colorado, Idaho, Montana, and Wyoming) (McCord and Cardoza 1982). In lower latitudes, less than 50 degrees north, boreal forests transition to deciduous temperate forest in the Northeast and Great Lakes, and to subalpine forest in the West. Potentially suitable habitat may occur in high elevation spruce-fir habitat throughout Wyoming (USFWS 2005).

Life History

Canada lynx are solitary carnivores with the ability to change reproductive output in accordance with variable, and sometimes cyclical, food availability. Adult Canada lynx are social only during the breeding season, between February and early April, when they form breeding pairs. They are polygamous and seasonally polyestrous; females cycle continuously until bred during the breeding season. Females typically give birth to one to five kittens (mean = 3.7 kittens) (McCord and Cardoza 1982).

Studies of Canada lynx from Montana and Wyoming show that they have two different types of movement, daily and exploratory. Daily movements, typically within the home range, average two to four kilometers. Exploratory or dispersal movements can range from seven to thirty-nine kilometers and take the animal outside their home range territory (Squires and Laurion 2000). However, fragmentation of habitat in southern regions may lead to increased ranges of movement between suitable foraging and denning sites (Koehler and Brittell 1990). Canada lynx will occasionally abandon established homeranges and become nomadic when prey is extremely scarce (McCord and Cardoza 1982).

Lynx hunt by night for their most common prey, the snowshoe hare, which can make up 70 percent of their diet (Zeveloff 1988). In Canada, Alaska, and Washington snowshoe hares comprised 35-97% of Canada lynx diet (Koehler and Aubry 1994). Secondary prey includes red squirrels (*Tamiasciurus hudsonicus*), ground squirrels (*Urocitellus spp.*), grouse, porcupine (*Erethizon dorsatum*), beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), deer mice (*Peromyscus spp.*), voles (*Microtus spp.*), shrews (*Sorex spp.*), and even some fish. Deer (*Odocoileus spp.*) and moose (*Alces alces*) occasionally appear in Canada lynx diets, mostly as carrion (Tumlison 1987, Ruediger et al. 2000).

Status and Distribution

On March 24, 2000 Canada lynx was federally listed as threatened by the USFWS (65 FR 16052) in accordance with provisions of the Endangered Species Act of 1973, as amended.

Canada lynx occupied Wyoming prehistorically (Kurten and Anderson 1980), as well as historically and into the present (Reeve et al. 1986). The best contiguous Canada lynx habitat in Wyoming is in the northwestern and western portion of the state. The remainder is highly fragmented, widely dispersed, and typically isolated by large expanses of arid shrubland (Ehle and Keinath 2002). The distribution of documented Canada lynx specimens and observations in Wyoming indicate that they most consistently occupy the Salt River, Wyoming, Teton, Wind River, Gros Ventre, and Absaroka mountain ranges (Reeve et al. 1986).

Critical habitat for the Canada lynx (50 CFR 17.95(a)) has been designated for portions of Fremont, Lincoln, Park, Sublette, and Teton Counties, including parts of Yellowstone National Park and the Bridger-Teton and Shoshone National Forests. However, none of the critical habitat occurs within the Rock Springs Field Office.

Threats

Threats to the species include but are not limited to habitat fragmentation, habitat destruction which reduces habitat for potential prey, deforestation, fire, predators, human interactions, vehicle collisions, disease, poaching, and oil and mineral developments (Meaney and Beauvais 2004).

Q.3.2 Grizzly Bear (Ursus arctos horribilis)—Threatened

Species/Habitat Description

Grizzly bear (*Ursus arctos horribilis*) is large, powerful bear with a massive head, small eyes, prominent nose, small rounded ears, and short tail (Pasitschniak-Arts 1993). The species is recognized by its dished facial profile, prominent shoulder hump, and long, slender, slightly re-curved fore claws twice the length of the hind claws (Pasitschniak-Arts 1993, Wilson and Ruff 1999). Dorsal guard hairs of some individuals from western North America are variegated and show a silver tipped or grizzled appearance, hence the name grizzly.

Grizzly bear occupies a variety of habitats throughout their range. They are highly adaptable and are capable of exploiting different landscapes given their lifestyle and intelligence. Grizzly bear habitat in the lower 48 States is characterized by extensive forest cover often interspersed with grasslands and meadows. In Wyoming, these habitats are typically above 1,500 meters (4,920 feet) (Schwartz et al. 2002). Home ranges must include sites suitable for hibernation. Denning sites are most commonly located in the subalpine fir stands on north-facing exposures (Craighead et al. 1995).

Life History

Except for mating and caring for the young, grizzly bear primarily lead solitary lives, spending most of their time foraging, or looking for food. Mating occurs from June through July. Grizzly bear embryos do not begin to develop until the mother begins her winter hibernation, although mating may have taken place up to six months before. As with other bears, if the mother has not accumulated enough fat to sustain her as well as developing cubs, the embryos typically do not develop. Cubs depend upon their mother's milk for almost a year, stay with their mother for up to three years, and reach breeding maturity at about 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$ years.

Prior to the growing season, grizzly bears congregate on ruminant wintering grounds. As succulent plant species became available, bears concentrate their activity at feeding sites in open areas near cover. After the growing season, bears will move to moist sites where succulent grasses and forbs remain available throughout the season. As valley vegetation declines, bears move to lodgepole pine forests to exploit late season foods such as whitebark pine seeds, berries, mushrooms (*Russula* spp.), and smilacina rhizomes.

Grizzly bear utilize a variety of foods including whitebark pine seeds, army cutworm moths, ants, earthworms, rodents, spawning cutthroat trout (*Oncorhynchus clarki*), ungulates (winter-killed or weakened animals, young in the spring and summer, bull elk weakened by the rut in the fall, and wolf kills), gut piles of hunter-killed elk and moose, fungal sporocarps, horsetails (*Equisetum arvense*), graminoids, forbs, berries, roots (especially roots of the biscuitroot) and anthropogenic foods such as garbage, pet food, and livestock (Kendall 1980, Mace et al. 1997, Mattson 2001, Mattson et al. 1991a, Mattson et al. 1991b, Mattson et al. 2002a, Mattson et al. 2002b, Mattson and Reinhardt 1995, Mattson and Reinhardt 1997, Schwartz et al. 2003). Researchers believe ungulates and whitebark pine seeds appear to be the two most important foods for grizzly bear, followed by army cutworm moths and spawning cutthroat trout (Mattson et al. 1991a, Mattson et al. 1991b, Mattson et al. 1992). On average, ungulate meat comprises nearly half of the annual energy intake for adult females and more than half for adult males (Reinhardt et al. 2001).

Intensive feeding occurs in autumn prior to denning. The most frequently used denning habitat is located in subalpine fir forest (Craighead et al. 1995). Mean den emergence among males was the fourth week in March and ranged from the first week in February to the fourth week in May.

Status and Distribution

The grizzly bear was listed as threatened in the lower 48 States under the Endangered Species Act by the U.S. Fish and Wildlife Service in 1975 (Fed. Reg. 40:145, 31734-31736).

Historically, the range of the grizzly in North America extended south from Alaska to northern Mexico and east from the Pacific coast to the Canadian Prairies and U.S. Great Plains west of the Mississippi River (Hall and Kelson 1959, Schwartz et al. 2003). They also occurred throughout most of Wyoming (Long 1965). Currently, five populations remain below the Canadian border. The population in Wyoming is located in the northwestern portion of the state (Servheen 1999). In Wyoming and elsewhere the grizzly bear has expanded its range in the past two decades and has reoccupied historic habitats. Current range expansion of the grizzly bear population is particularly evident in the southern portion of the ecosystem in Wyoming (Schwartz et al. 2002).

Threats

The primary reasons for the decline of grizzly bear in North America are excessive human-caused mortality and habitat loss (Schwartz et al. 2003). Displacement of grizzly bears from quality habitats, resulting from roads and other man-made structures (such as fences and buildings) may prevent dispersal, force bears to use poorer quality sites, increase intraspecific competition by further forcing more bears into limited remote habitat, and may cause social disruption in areas away from developments and roads (Kasworm and Manley 1989, McLellen 1989). These disturbances may result in displacement and/or disruption of normal behavior patterns such as copulation, movement, denning, foraging, physiological arousal without overt behavioral response, and even direct loss of habitat via avoidance.

Environmental events, such as drought and climate change may also pose significant threats to long-term persistence of small, isolated populations and are therefore real threats to persistence of the grizzly bear population in Wyoming. Researchers are particularly concerned about impacts of future climate warming on two very important foods, seeds of whitebark pine and aggregated army cutworm moths. These two species occur at high elevations and are particularly susceptible to climate warming.

Q.3.3 North American Wolverine (*Gulo gulo luscus*)—Proposed Threatened

Species/Habitat Description

The North American wolverine is the largest land-living species in the weasel family, or mustelids. The wolverine usually weighs between 17 and 40 pounds, stands up to 1.5 feet tall, and is generally 33 to 44 inches long (including tail). The male is larger than females.

Wolverine populations are currently known in the North Cascades Range in Washington; the Northern Rockies of Montana, Idaho, Wyoming; and a small portion of Oregon (Wallowa Range). The wolverine also resides in Alaska, Canada, and Russia. The wolverine ranges widely, up to 15 miles a day, and needs lots of habitat. Home ranges can vary from 100 to 600 square miles. In the lower 48, they live primarily at high altitudes with alpine vegetation, but can venture to lower elevations. It is estimated that 25 to 300 live in the lower 48 states.

Life History

The North American wolverine is the largest land-living species in the weasel family, or mustelids. The wolverine usually weighs between 17 and 40 pounds, stands up to 1.5 feet tall, and is generally 33 to 44 inches long (including tail). The male is larger than females.

Status and Distribution

Wolverine populations are currently known in the North Cascades Range in Washington; the Northern Rockies of Montana, Idaho, Wyoming; and a small portion of Oregon (Wallowa Range). The wolverine also resides in Alaska, Canada, and Russia. The wolverine ranges widely, up to 15 miles a day, and needs lots of habitat. Home ranges can vary from 100 to 600 square miles. In the lower 48, they live primarily at high altitudes with alpine vegetation, but can venture to lower elevations. It is estimated that 25 to 300 live in the lower 48 states.

Threats

Wolverines in the lower 48 states are under consideration for protection under the Endangered Species Act. Although the wolverine has very specific habitat needs, was never a common species, and was widely persecuted, the primary reason now for a threatened listing is climate change. Wolverines need deep snow to birth and rear their young.

Q.3.4 Piping Plover (Charadrius melodus)—Threatened

Species/Habitat Description

The piping plover (*Charadrius melodus*) is a sandy-gray, robin-sized shorebird with one dark breast band (Wilcox 1959, Haig 1992). It has a dark stripe across the crown during the breeding season. Other characteristics include a white wing stripe and a white rump that is visible in flight.

Piping plover nest on sandbars and sand and gravel beaches with short, sparse vegetation along inland lakes, on natural and dredge islands in rivers, in gravel pits along rivers and on salt-encrusted bare areas of sand, gravel, or pebbly mud on interior alkali ponds and lakes.

Life History

Piping plover feed along the water's edge on small insects, worms, terrestrial insects, crustaceans and mollusks (Haig 1992). Piping plover are present on breeding grounds from late March through August. Nests are shallow, scraped depressions occasionally lined with small pebbles, shells, or other material. A clutch of four eggs is usually laid in late May or early June with hatching in 27 to 31 days. Piping plover are considered monogamous, but because nests are often destroyed at the beginning of the breeding season, new mates are known to have been chosen. One brood per year is characteristic of the piping plover, however, females are capable of laying several clutches if a nest is destroyed (Haig 1992). Eggs and young are tended by both parents.

Status and Distribution

On December 11, 1985, the piping plover was listed as endangered in the Great Lakes watershed of both the United States and Canada, and as threatened in the remainder of its range in the U.S. (Northern Great Plains, Atlantic and Gulf Coasts, Puerto Rico, Virgin Islands), Canada, Mexico, Bahamas, and the West Indies (USFWS 1985, COSEWIC 2001).

The species has not been known to occur in Wyoming. However, the species is included in the document because management actions in Wyoming may affect critical habitat for the species by extension through water depletions.

Threats

Because the species does not occur in the state of Wyoming, threats to the species within the state would only occur from water depletions. Since 1978, the USFWS has consistently found through formal Section 7 consultations with federal agencies that actions resulting in depletions to flows in the Platte River system are likely to jeopardize the continued existence of one or more federally-listed threatened or endangered species and adversely modify critical habitat (Instruction Memorandum No. WY-2007-039).

Q.3.5 Whooping Crane (*Grus americana*) – Endangered

Species/Habitat Description

Whooping crane (*Grus americana*) adults are snow white, except for black primary feathers on the wings, and a bare, red face and crown. The bill is a dark olive-gray which will turn lighter during the breeding season. The whooping crane's eyes are yellow, and the long, thin legs and feet are gray-black. There is a patch of reddish-black bristly feathers on the top and back of the head, atop a long neck. Black feathers on the side of the head below the yellow eye look like a long, dark moustache. The whooping crane is the only large white bird with black wingtips that flies with its neck straight out in front and the legs trailing far behind. It also is the only one that walks or stands on long, thin legs and does not swim.

Immature cranes are a reddish-cinnamon color that results in a mottled appearance as the white feather bases extend. The juvenile plumage is gradually replaced through the winter months and becomes predominantly white by the following spring as the dark red crown and face appear. Yearlings achieve the typical adult appearance late in their second summer or fall.

The whooping crane continue to use ancestral breeding areas, migration routes and wintering grounds. Over the last fifty years, there has been little natural dispersal of the species. Low population numbers likely have contributed to this lack of dispersal into new habitats and territories.

Breeding habitat for whooping crane is typically poorly drained wetlands within the headwaters of the Nyarling, Sass, Klewi, and Little Buffalo rivers. The area is interspersed with multiple shallow-water wetlands of various sizes, shapes and depths. The wetlands are separated by narrow ridges that are vegetated with white spruce (*Picea glauca*), black spruce (*P. mariana*), tamarack (*Larix laricina*), willows (*Salix spp.*) and an understory of dwarf birch (*Betula glandulosa*), Labrador tea (*Ledum groenlandicum*), and bear berry (*Arctostaphylos uvalursi*). Bulrush (*Scirpus validus*) is the dominant plant in the potholes used for nesting; although cattail (*Typha spp.*), sedge (*Carex aquatilis*), musk-grass(*Chara spp.*), and other aquatic plants are common (Lewis 1995).

Life History

Whooping crane are omnivorous, obtaining foods from soil, water, and vegetation. They feed primarily on mollusks, crustaceans, aquatic insects, minnows, frogs, and snakes (Allen 1956, Novakowski 1966). During migration, frogs, fish, plant tubers, crayfish, insects, and waste grains in harvested fields comprise the whooping crane's diet. In winter, whooping crane feed primarily on crabs and clams. They will wander into upland areas following flooding by rain to feed on acorns, snails, mice, voles, crayfish, grasshoppers, and snakes (Bishop and Blankenship 1982, Hunt 1987).

Whooping crane are monogamous and form life-long pair bonds but will re-mate following the death of a mate. Typically, they construct nests of bulrush and lay one to three eggs in late April and early May. The incubation period is about 29 to 31 days. Whooping crane will re-nest if the first clutch is lost or destroyed before mid-incubation. Both sexes share incubation and brood-rearing obligations. Even though most pairs lay two eggs, seldom does more than one chick reach fledging.

Status and Distribution

On March 11, 1967, whooping crane were listed as an endangered species under the Endangered Species Preservation Act of 1966 (80 Stat. 926; 16 USC 668aa(c)). On January 4, 1974 (39 FR 1171) the species was "grandfathered" into the Endangered Species Act of 1973, as amended.

Whooping crane occur exclusively in North America and were likely never very common in historic times. The principal historic breeding range stretched across central North America from central Alberta through southern Saskatchewan and Manitoba, northeastern North Dakota, western Minnesota, southern Wisconsin, northern Iowa, and northern Illinois (Allen 1952). In 1975 the USFWS and Canadian Wildlife Service tried to establish an experimental whooping crane population within the Rocky Mountains. Whooping crane eggs were placed in the nests of sandhill cranes. The experiment did not work because the whooping cranes thought they were sandhill cranes and they didn't breed or establish a new population. No whooping cranes are known to occur in Wyoming at this time. The species is included in the document because management actions in Wyoming may affect critical habitat for the species by extension through water depletions.

Threats

Because the species does not occur in the state of Wyoming, threats to the species within the state would only occur from water depletions. Since 1978, the USFWS has consistently found through formal Section 7 consultations with federal agencies that actions resulting in depletions to flows in the Platte River system are likely to jeopardize the continued existence of one or more federally-listed threatened or endangered species and adversely modify critical habitat (Instruction Memorandum No. WY-2007-039).

Q.3.6 Western Yellow-billed Cuckoo (Coccyzus americanus)— Threatened

Species/Habitat Description

The western yellow-billed cuckoo (*Coccyzus americanus*), is a medium-sized bird of about 30 centimeters (12 in.) in length and weighing about 60 grams (2 ounces). The species has a slender, long-tailed profile with a fairly stout and slightly down-curved bill which is blue-black with yellow on the basal half of the lower mandible. The feathers are grayish-brown above and white below with rufous primary flight feathers. The tail feathers are boldly patterned with black and white below. The legs are short and bluish- gray, and adults have a narrow, yellow eye ring. Juveniles resemble adults; however, the tail patterning is less distinct, and the lower bill may have little or no yellow. Males and females differ slightly; males tend to have a slightly larger bill, and the white in the tail tends to form oval spots, whereas in females, the white spots tend to be connected and less distinct (Hughes 1999).

The western yellow-billed cuckoo is one of two subspecies of the yellow-billed cuckoo (UDWR 2003). The western subspecies is found intermittently throughout the western United States in dense riparian vegetation, including cottonwood and willow stands, tamarisk thickets, Russian olive, and orchards.

Two hectares (approximately 5 acres) of dense riparian vegetation is considered the absolute minimum size for cuckoo occupancy, as no cuckoos have been detected successfully nesting in patches smaller than two hectares (Corman and Magill 2000, Halterman et al 2001).

Life History

Western yellow-billed cuckoo's breeding season is in late spring. Nests are generally built from 4 to 10 feet off the ground in riparian vegetation. Both the male and the female incubate the three to four eggs for nine to eleven days. Both parents feed the young which fledge in approximately three weeks (Kaufmann 1996).

Western yellow-billed cuckoos primarily consume insects such as caterpillars, cicadas, beetles, grasshoppers, and katydids, as well as lizards, frogs, eggs of other birds, berries, and small fruits. Population density appears to rise and fall in relation to insect outbreaks (Kaufmann 1996).

Status and Distribution

In 2012, the western subspecies of the yellow-billed cuckoo was proposed as threatened under the ESA (78 Federal Register 61621-61666). The USFWS has found that the species population status warrants listing.

In Wyoming, the Wyoming Natural Diversity Database, WYNDD, ranks the state abundance of yellowbilled cuckoos as 'Very Rare' - fewer than 1,000 resident individuals (Keinath and Beauvais 2002). Others consider it an uncommon summer resident (WGFD 1997, Dorn and Dorn 1999). The accuracy of these designations is still unclear given the lack of survey data. There have been very few observations reported in Wyoming and fewer still that have documented breeding. Breeding was documented within the city limits of Sheridan in 1980 (Downing 1990). Within the last twenty-five years, breeding was suspected along East Wolf Creek and Big Goose Creek near Sheridan, along the North Platte River in Rawhide Wildlife Habitat Management Area (WHMA), near Springer WHMA in Goshen County and along the South Fork Miller Creek north of Sundance.

Threats

Threats the western yellow-billed cuckoo face are related to habitat destruction and degradation, livestock use of riparian areas, water withdrawals, and human development. Hughes (1999) also summarized effects of heavy pesticide use during the last fifty years has likely contributed to population declines by removing and/or poisoning prey. The pesticide use may have also resulted in directly poisoning birds and causing egg shell thinning.

Q.3.7 Bonytail Chub (Gila elegans) – Endangered

Species Description/Habitat

Bonytail chub (*Gila elegans*), are medium-sized (less than 600 mm or 23.62 in.) fish in the minnow family. Adult bonytail are gray or olive colored on the back with silvery sides and a white belly. Adult bonytail have an elongated body with a long, thin caudal peduncle. The head is small and compressed compared to the rest of the body. The mouth is slightly overhung by the snout and there is a smooth low hump behind the head that is not as pronounced as the hump on a humpback chub.

Vanicek (1967) reported that bonytail were generally found in pools and eddies in the absence of, although occasionally adjacent to, strong current and at varying depths generally over silt and silt-boulder substrates. Adult bonytail are sympatric with humpback chub in shoreline eddies among emergent boulders and cobble,

and adjacent to swift current (Valdez 1990). The diets of bonytail are presumed similar to that of the humpback chub (USFWS 2002).

Life History

Bonytail are considered a species that is adapted to main stem rivers because it has been observed in pools and eddies (Vanicek 1967, Minckley 1973). Spawning of bonytail has never been observed in a river, but ripe fish were collected in Dinosaur National Monument in Utah during late June and early July suggesting that spawning occurred at water temperatures of about 18 degrees Celsius (°C) (64.4 degrees Fahrenheit [°F]) (Vanicek and Kramer 1969). Similar to other closely related *Gila* species, bonytail probably spawn in rivers in spring over rocky substrates. Spawning has been observed in reservoirs over rocky shoals and shorelines. It has been recently hypothesized that flooded bottomlands may provide important bonytail nursery habitat.

Status and Distribution

Bonytail chub were first listed as endangered on April 23, 1980 (45 FR 27710). It is currently designated as endangered throughout its entire range. Currently, no documented self-sustaining populations exist in the wild. Formerly reported as widespread and abundant in main stem rivers, its populations have been greatly reduced (Jordan and Evermann 1896). Remnant populations presently occur in the wild in low numbers (USFWS 2002). The species is not known to occur in Wyoming. However, the species is included in the document because management actions in Wyoming may affect critical habitat for the species by extension through water depletions.

Threats

The primary threats to bonytail are stream flow regulation and habitat modification, competition with and predation by nonnative fishes, hybridization with other native *Gila* species, poor land-use practices, degraded water quality, pesticides, and pollutants (USFWS 2002). The existing habitat, altered by these threats, has been modified to the extent that it impairs essential behavior patterns, such as breeding, feeding, and sheltering. Threats to bonytail in relation to hybridization are essentially the same threats identified for humpback chub. Bonytail were extirpated in some areas primarily because of rotenone poisoning and coldwater releases from dams (USFWS 2002).

Q.3.8 Colorado Pikeminnow (*Ptychocheilus lucius*)—Endangered

Species/Habitat Description

The Colorado pikeminnow (*Ptychocheilus lucius*), are the largest cyprinid fish (minnow family) native to North America. It is an elongated pike-like fish that during pre-development times may have grown as large as 6 feet in length and weighed nearly 100 pounds (Behnke and Benson 1983). Today, Colorado pikeminnow rarely exceed 3 feet in length or weigh more than 18 pounds; such fish are estimated to be 45 to 55 years old (Osmundson et al. 1997). The mouth of this species is large and nearly horizontal with long slender pharyngeal teeth (located in the throat), adapted for grasping and holding prey. Adults are strongly counter shaded with a dark, olive back, and a white belly. Young Colorado pikeminnow are silvery and usually have a dark, wedge-shaped spot at the base of the caudal fin.

Colorado pikeminnow live in warm-water reaches of river main stems and larger tributaries and require uninterrupted stream passage for spawning migrations and dispersal of young. The species is adapted to a hydrologic cycle characterized by large spring peaks of snowmelt runoff and low, relatively stable base flows (Junk *et al.* 1989; Johnson *et al.* 1995). Colorado pikeminnow use relatively deep, low-velocity

eddies, pools, and runs that occur in near-shore areas of main river channels (Tyus and McAda 1984, Valdez and Masslich 1989, Tyus 1990, 1991, Osmundson *et al.* 1995). In spring, Colorado pikeminnow use floodplain habitats, flooded tributary mouths, flooded side canyons, and eddies that are available only during high flows (Tyus 1990, 1991, Osmundson *et al.* 1995). Gravel and cobble deposits are usually found in the habitat to be used for spawning.

Life History

The diet of Colorado pikeminnow longer than 7.6 to 10.2 cm (3 to 4 in.) consists almost entirely of other fish (Vanicek and Kramer 1969). Males become sexually mature earlier and at a smaller size than do females, though all are mature by about age seven and 500 mm (20 in.) in length (Vanicek and Kramer 1969, Seethaler 1978, Hamman 1981).

Colorado pikeminnow are long-distance migrators; adults move hundreds of miles to and from spawning areas and require long sections of river with unimpeded passage. Adults require pools, deep runs, and eddy habitats maintained by high spring flows. High spring flows provide an important cue to prepare adults for migration (Harvey et al. 1993). These high spring flows maintain channel and habitat diversity, flush sediments from spawning areas, rejuvenate food production, form gravel and cobble deposits used for spawning, and rejuvenate backwater nursery habitats.

Spawning occurs after spring runoff at water temperatures typically between 18 and 23°C (64.4°F and 73.4°F). It has occurred as early as June 15th in some years and as late as August 15th. Although direct observation of Colorado pikeminnow spawning is not possible, in one study, radio telemetry indicated spawning may occur over cobble-bottomed riffles (Tyus 1990).

Known spawning sites are also in canyon-bound reaches (McAda 2000). Because of their mobility and environmental tolerances, adult Colorado pikeminnow are more widely distributed than other life stages. Distribution patterns of adults are stable during most of the year, but distribution of adults change in late spring and early summer due to migration to spawning (Tyus and McAda 1984, Tyus 1985, 1990, 1991, Irving and Modde 2000).

After hatching and emerging from the spawning substrate, Colorado pikeminnow larvae drift downstream to backwaters in sandy, alluvial regions, where they remain through most of their first year of life (Holden 1977; Tyus and Haines 1991; Muth and Snyder 1995). Backwaters and the physical factors that create them are vital to successful recruitment of early life stages of the Colorado pikeminnow. It is important to note that these backwaters are formed after cessation of spring runoff within the active channel and are not floodplain features. Colorado pikeminnow larvae occupy these in-channel backwaters soon after hatching. They tend to occur in backwaters that are large, warm, deep (average, about 0.3 m. or 1 foot in the Green River), and turbid (Tyus and Haines 1991). Recent research has confirmed these preferences and suggested that a particular type of backwater is preferred by Colorado pikeminnow larvae and juveniles (Day *et al.* 1999a, 1999b, Trammell and Chart 1999).

Status and Distribution

The Colorado pikeminnow was first listed on March 11, 1967 (32 FR 4001). Full protection under the ESA occurred on January 4, 1974. It is currently designated as endangered throughout its range, except in the Salt and Verde River drainages in Arizona. Based on early fish collection records, archaeological finds, and other observations, the Colorado pikeminnow was once found throughout warm water reaches of the entire Colorado River Basin down to the Gulf of California, including reaches of the upper Colorado River and its major tributaries, the Green River and its major tributaries, and the Gila River system in Arizona (Seethaler 1978). Colorado pikeminnow have never been found in colder, headwater areas.

Major declines in Colorado pikeminnow populations occurred during the dam-building era of the 1930s through the 1960s. Behnke and Benson (1983) summarized the decline of the natural ecosystem, pointing out that dam, impoundments, and water use practices drastically modified the river's natural hydrology and channel characteristics throughout the Colorado River Basin. Dams on the main stem broke the natural continuum of the river ecosystem into a series of disjunct segments, blocking native fish migrations, reducing temperatures downstream of dams, creating lacustrine habitat, and providing conditions that allowed competitive and predatory nonnative fishes to thrive both within the impounded reservoirs and in the modified river segments that connect them. This has reduced the ideal habitat of the species. The highly modified flow regime in the lower basin coupled with the introduction of nonnative fishes decimated populations of native fish.

No self-sustaining populations of this species are currently known to exist in Wyoming and no recent sightings have been reported in Wyoming. However, in 1988, an individual was captured from the Little Snake River in Wyoming, which is a tributary to the Yampa River in Colorado where populations are known to exist. Management actions that involve water depletions in Wyoming may affect critical habitat for the species in states located downstream.

Threats

The primary threats to Colorado pikeminnow are stream flow regulation and habitat modification, competition with and predation by nonnative fishes, and pesticides and pollutants (USFWS 2002). The existing habitat, altered by these threats, has been modified to the extent that it impairs essential behavior patterns, such as breeding, feeding, and sheltering. These impairments are described in further detail below. Data collected by Osmundson and Kaeding (1991) indicated that during low water years, nonnative minnows capable of preying on or competing with larval endangered fishes greatly increased in numbers.

Threats from pesticides and pollutants include accidental spills of petroleum products and hazardous materials, discharge of pollutants from uranium mill tailings, and high selenium concentration in the water and food chain (USFWS 2002). Accidental spills of hazardous material into critical habitat can cause immediate mortality when lethal toxicity levels are exceeded. Pollutants from uranium mill tailings cause high levels of ammonia that exceed water quality standards. High selenium levels may adversely affect reproduction and recruitment (Hamilton and Wiedmeyer 1990, Stephens et al. 1992, Hamilton and Waddell 1994, Hamilton *et al.* 1996, Stephens and Waddell 1998).

Q.3.9 Humpback Chub (*Gila cypha*)—Threatened

Species/Habitat Description

The humpback chub (*Gila cypha*) is a medium-sized freshwater fish (less than 500 mm or 19.7 in.) of the minnow family. The adults have a pronounced dorsal hump, a narrow, flattened head, a fleshy snout with an inferior-subterminal mouth, and small eyes. It has silvery sides with a brown or olive colored back.

Backwaters, eddies, and runs have been reported as common capture locations for young-of-year humpback chub (Valdez and Clemmer 1982). Data indicates that young utilize shallow areas. Habitat suitability index curves developed by Valdez *et al.* (1990) indicate young-of-year prefer average depths of 0.64 m. (2.1 ft.) with a maximum of 1.55 m. (5.1 ft.). Average velocities were reported at 0.06 meters per second (0.2 feet per second). Valdez et al. (1982), Wick et al. (1979), and Wick et al. (1981) found adult humpback chub in water averaging 50 feet in depth with a maximum depth of 92 feet. In these localities, humpback chub were associated with large boulders and steep cliffs. Gorman and Stone (1999) reported that ripe male humpback chub aggregated in areas of complex habitat structure (i.e., matrix of large boulders and travertine masses combined with chutes, runs, eddies, 0.5–2.0 m. deep) and were associated with deposits of clean gravel.

Generally, humpback chub show fidelity for canyon reaches and move very little (Miller et al. 1982, Archer et al. 1985, Burdick and Kaeding 1985, Kaeding et al. 1990). Tyus and Karp (1989) reported that humpback chub occupy shoreline eddy habitats. They also reported that spring peak flows were important for reproductive success because availability of these habitats is greatest during spring runoff.

Life History

Tyus and Karp (1991) found that humpback chub spawn during spring and early summer following peak flows at water temperatures of about 20°C (68°F). They estimated that the spawning period for humpback chub ranges from May into July, with spawning occurring earlier in low-flow years and later in high-flow years; spawning was thought to occur only during a four to five-week period (Karp and Tyus 1990). Peak hatch of humpback chub larvae occurs on the descending limb of the hydrograph following spring runoff at maximum daily water temperatures of approximately 20 to 21°C (68 to 69.8°F) (Chart and Lentsch 1999). Although humpback chub are believed to broadcast eggs over mid-channel cobble and gravel bars, spawning in the wild has not been observed for this species.

Humpback chub do not make extensive migrations (Karp and Tyus 1990). In some areas the humpback chub were essentially restricted to a 1.6 km (1 mile) reach. These results were based on the recapture of Carlin-tagged fish and radio telemetry studies conducted from 1979 to 1981 (Valdez et al. 1982) and 1983 to 1985 (Archer et al. 1985, USFWS 1986, Kaeding et al. 1990).

Chart and Lentsch (1999) estimated hatching dates for young *Gila* between 1992 and 1995. They determined that hatching occurred on the descending limb of the hydrograph as early as June 9, 1992 at a flow of 139 cubic meters per second (m^3/s) (4,908.7 cubic feet per second [ft^3/s]) and as late as July 1, 1995 at a flow of 731 m^3/s (25,815 ft^3/s). Instantaneous daily river temperatures on hatching dates overall years ranged from 20 to 22°C (68 to 71.6°F). Newly hatched larvae average 6.3–7.5 mm (0.25-0.3 in.) total length and one-month-old fish are approximately 20 mm (0.79 in.) long (Holden 1973, Suttkus and Clemmer 1977, Minckley 1973, Snyder 1981, Hamman 1982, Behnke and Benson 1983, Muth 1990). No evidence exists of long-distance larval drift (Miller and Hubert 1990, Robinson *et al.* 1998). Upon emergence from spawning gravels, humpback chub larvae remain in the vicinity of bottom surfaces near spawning areas (Marsh 1985, Chart and Lentsch 1999).

High spring flows that simulate the magnitude and timing of the natural hydrograph provide a number of benefits to humpback chub. Bank-full and over-bank flows provide allochthonous energy input to the system in the form of terrestrial organic matter and insects that are utilized as food. High spring flows clean spawning substrates of fine sediments and provides physical cues for spawning. High flows also form large re-circulating eddies used by adult fish (Chart and Lentsch 1999). High spring flows (50% exceedance or greater) have been correlated with increased recruitment of humpback chub (Chart and Lentsch 1999).

Status and Distribution

Humpback chub was listed as endangered on March 11, 1967. The USFWS designated critical habitat for the humpback chub on March 21, 1994 (59 FR 13374). Historic abundance of the humpback chub is unknown and historic distribution is surmised from various reports and collections that indicate the species presently occupies about 68% of its historic habitat (Tyus 1998).

There are no known occurrences of humpback chub in Wyoming (USFWS 2002). However, the species is included in the document because management actions in Wyoming may affect critical habitat for the species by extension through water depletions.

Threats

The primary threats to humpback chub are stream flow regulation and habitat modification, competition with and predation by nonnative fishes, parasitism (Asian tapeworm), hybridization with other native *Gila* species, and pesticides and pollutants (USFWS 2002). The existing habitat, altered by these threats, has been modified to the extent that it impairs essential behavior patterns, such as breeding, feeding, and sheltering. Although historic data are limited, the apparent range-wide decline in humpback chub is likely due to a combination of factors including alteration of river habitats by reservoir inundation, changes in stream discharge and temperature, competition with and predation by introduced fish species, and other factors such as changes in food resources resulting from stream alterations (USFWS 1990). Also, extensive human alterations throughout the basin prior to faunal surveys may have depleted or eliminated the species from some river reaches before its occurrence was documented.

Q.3.10 Pallid Sturgeon (Scaphirhynchus albus)—Endangered

Species/Habitat Description

The pallid sturgeon (*Scaphirhynchus albus*), is an ancient species that existed during the dinosaur era. Pallid sturgeon are considered to be one of the most poorly known and infrequently seen freshwater fishes in North America. Pallid sturgeon are one of the largest (76 to 172 cm, 30 to 60 in.) fishes found in the Missouri- Mississippi River drainage and weigh up to 39 kilograms (85 pounds). They are typically light brown on the dorsal surface and white underneath. The fish has a flattened, shovel-shaped snout and fleshy chin barbels are located about one third the distance between the mouth and snout. They also have inner barbels which are located about one half the length of the outer barbels. Pallid sturgeon have a long, slender, flattened and armored region from the dorsal fin to the tail fin (caudal peduncle), which has along upper lobe.

The pallid sturgeon is a bottom dweller, found in areas of strong current and firm sand bottom in the main channel of large, turbid rivers. Little is known about pallid sturgeon life requirements; however, we do know that they prefer large, turbid, free-flowing riverine habitats with rocky substrates. Pallid sturgeons are well adapted to life on the river bottom and inhabit areas of swifter water.

Life History

Pallid sturgeon grow very slowly and mature late. Spawning occurs from June through August. The barbels, used to sense the river bottom and identify prey, allow the fishes mouth to quickly capture it. Prey consists of aquatic insects and small, bottom dwelling fish. Pallid sturgeon have been known to live beyond 60 years and do not reach sexual maturity until about age 20.

Pallid sturgeon are known to hybridize in nature with closely related sturgeon, and it is thought that loss of habitat and reproductive cues (water level raises) are the likely causes. Since their former unique spawning habitats have been altered or lost largely due to damming, altered hydrology, and channelization, both species are forced to spawn at the few remaining acceptable locations. Fertilization occurs externally, and hybridization occurs when eggs and sperm of the two species are mixed in the riverwater as it flows over the gravelly spawning beds.

Status and Distribution

The pallid sturgeon was listed by the USFWS as endangered on September 6, 1990, in accordance with provisions of the ESA.

The range of pallid sturgeon includes the headwaters of the Missouri River (Fort Benton-Great Falls, Montana) through the Mississippi River to New Orleans, Louisiana. Pallid sturgeon have not been documented in Wyoming. The species is included in this document because management actions in Wyoming may affect critical habitat for the species by extension through water depletions within the Platt River drainage basin.

Threats

Because the species does not occur in the state of Wyoming, threats to the species within the state would only occur from water depletions. Since 1978, the USFWS has consistently found through formal Section 7 consultations with federal agencies that actions resulting in depletions to flows in the Platte River system are likely to jeopardize the continued existence of one or more federally-listed threatened or endangered species and adversely modify critical habitat (Instruction Memorandum No. WY-2007-039).

Q.3.11 Razorback Sucker (*Xyrauchen texanus*)—Endangered Razorback Sucker (*Xyrauchen texanus*) – Endangered

Species/Habitat Description

The razorback sucker (*Xyrauchen texanus*) is a fish belonging to the family *Catostomidae* (meaning "down mouth"). Razorback sucker have ventral mouths with thick lips covered with papillae and no scales on its head. Suckers are bottom browsers, sucking up or scraping off small invertebrates, algae, and organic matter with their fleshy, protrusible lips (Moyle 1976). Razorback sucker are the only sucker with an abrupt sharp-edged dorsal keel behind its head, which becomes larger with age. The head and keel are dark, the back is olive-colored, the sides are brownish or reddish, and the abdomen is yellowish white (Sublette et al. 1990).

Adults often exceed 3 kg (6 lbs.) in weight and 600 mm (2 feet) in length. Razorback sucker are long-lived; an adult sucker can live 44 to 50 years. Razorback suckers reach maturity between two and seven years of age (Minckley 1983). They can produce viable gametes even when quite old. Survival adaptations include the ability to spawn in a variety of habitats and flow regimes, and over a long season.

Outside of the spawning season, adult razorback sucker occupy a variety of shoreline and main channel habitats including slow runs, shallow to deep pools, backwaters, eddies, and other relatively slow velocity areas associated with sand substrates (Tyus 1987, Tyus and Karp 1989, Osmundson and Kaeding 1989, Valdez and Masslich 1989, Osmundson and Kaeding 1991, Tyus and Karp 1990). Razorback sucker are also known to be in off-channel habitats, flooded side canyons, washes, side channels and tributaries (Muth *et al.* 1998). Habitat requirements of young and juvenile razorback sucker in the wild are not yet well known, particularly in native riverine environments.

Life History

Razorback sucker can spawn as early as age three or four, when they are 35.6 cm (14.4 in.) or more in length. Depending on water temperature, spawning can take place as early as November or as late as June. In the upper Colorado River basin, razorbacks typically spawn between mid-April and mid-June. These fish reportedly migrate long distances to spawn, congregating in large numbers in spawning areas. Sexually mature razorback sucker are generally collected on the ascending limb of the hydrograph from mid-April through June (depending on the specific location). Tyus and Karp (1990) and Osmundson and Kaeding (1991) reported off-channel habitats to be much warmer than the main stem river. Razorback sucker presumably moved to these areas for feeding, resting, sexual maturation, spawning, and other activities associated with their reproductive cycle.

Status and Distribution

The razorback sucker was first listed on October 23, 1991 (56 FR 54957). It is currently designated as endangered throughout the entire range of the species. On March 14, 1989, the USFWS was petitioned to conduct a status review of the razorback sucker (56 FR 54957). The final rule stated, "Little evidence of natural recruitment has been found in the past 30 years, and numbers of adult fish captured in the last 10 years demonstrate a downward trend relative to historic abundance."

Critical habitat was designated for razorback sucker on March 21, 1994 (59 FR 13374).

Historically, razorback sucker were found in the main stem Colorado River and major tributaries in Arizona, California, Colorado, Nevada, New Mexico, Utah, and in Mexico (Ellis 1914, Minckley 1983). Between 1992 and 1995 larval razorback sucker were collected in the middle and lower Green River and within the Colorado River inflow to Lake Powell (Muth 1995). Average fecundity recorded in studies ranged from 100,800 to 46,740 eggs per female (Bestgen 1990).

Although the species has not been found in Wyoming, there is potential for the species to travel up the Little Snake River, which flows into Colorado from Wyoming and ends up in the Yampa River (USFWS 2002). The main reason this species is included in the document is because management actions in Wyoming may affect critical habitat for the species by extension through water depletions.

Threats

The primary threats to razorback sucker are stream flow regulation and habitat modification, competition with and predation by nonnative fishes, and pesticides and pollutants (USFWS 2002). The existing habitat, altered by these threats, has been modified to the extent that it impairs essential behavior patterns, such as breeding, feeding, and sheltering. Significant changes have occurred in razorback sucker habitat through diversion and depletion of water, introduction of nonnative fishes, and construction and operation of dams (56 FR 54957) and reservoirs. Dams on the main stem of the river and its major tributaries have segmented the river system, blocked migration routes, and changed much of the river habitat into lake habitat. Dams have also drastically altered flows, temperatures, and channel geomorphology. Wydoski and Wick (1998) identified starvation of larval razorback sucker due to low zooplankton densities in the main channel and loss of seasonal floodplain habitats which provide adequate zooplankton densities for larval food as one of the most important factors limiting recruitment. Lower regulated river discharges, channelization, and levee construction has restricted access to those floodplain habitats. Reduction in spring peak flows may hinder the ability of razorback sucker to form spawning aggregations because spawning cues are reduced (Modde and Irving 1998).

Q.3.12 Monarch Butterfly (Danaus plexippus) — Candidate

Species/Habitat Description

The monarch butterfly or simply monarch (*Danaus plexippus*) is a milkweed butterfly. is amongst the most familiar of North American butterflies and an iconic pollinator, although it is not an especially effective pollinator of milkweeds. Its wings feature an easily recognizable black, orange, and white pattern, with a wingspan of 8.9–10.2 cm (3.5–4.0 in) stripe across each hindwing. Monarch butterflies live mainly in prairies, meadows, grasslands and along roadsides, across most of North America. The adult butterfly drinks nectar from a variety of flowers, uncoiling and extending its long proboscis to sip food. When not in use, this flexible "tongue" coils back into a spiral.

Life History

Most monarchs will live only a few weeks, but the generation that emerges in late summer and early fall is different. These butterflies are born to travel and may live for eight or nine months to accomplish their lengthy migration. Scientists think the monarchs use the position of the sun and the changing weather to know when it's time for their long journey.

Status and Distribution

Monarch butterflies are found across North America wherever suitable feeding, breeding, and overwintering habitat exists. They are broken into two populations separated by the Rocky Mountains, called the eastern and the western populations.

Threats

Monarch butterflies are threatened by pesticides, which are killing the milkweed plants they need to survive. Urban development and climate change are also threats.

Q.3.13 Ute Ladies' -tresses (Spiranthes diluvialis)—Threatened

Species/Habitat Description

Ute ladies'-tresses (*Spiranthes diluvialis*) is a perennial orchid (family Orchidaceae). The orchid first appears above ground as a rosette of thickened grass-like leaves that is very difficult to distinguish from other vegetation. The species' leaves are up to 1.5 cm (0.6 in.) wide and 28 cm (11 in.) long; the longest leaves are near the base. The usually solitary flowering stem is 20 to 50 cm (8 to 20 in.) tall, terminating in a spike of three to 15 white or ivory flowers.

Ute ladies'-tresses occur in soils moist at the surface throughout the growing season. Soils are generally silty-loam often underlain with cobble and gravel. The habitat settings are early to mid-successional riparian habitats (i.e. well established soils and vegetation) along perennial streams and rivers such as moist stream edges, high flow channels, old oxbows, vegetated point bars, and other fluvial features with appropriate hydrology, and areas supported by groundwater and sometimes supplemented by irrigation water, such as wet meadows and springs (Fertig et al. 1994, USFWS 1995, Fertig 2000, 57 FR 2048). Ute ladies'-tresses appears to be well adapted to disturbance caused by water movement through flood plains as well.

Besides hydrology, common habitat features include dominance by perennial graminoids and forbs and low vegetative cover. Where colonies occur in more wooded areas, plants are usually found on the edges of small openings and along trails (Ward and Naumann 1998). Ute ladies'-tresses is intolerant of crowding and competition. The orchid may persist for some time in the grassy understory of these woody riparian shrublands, but do not appear to thrive under these conditions (Ward and Naumann 1998).

Life History

Flowering of Ute ladies'-tresses occurs from mid-July through August. However, in some locations it may bloom in early July or may still be in flower as late as early October. Some individuals remain under ground or do not flower each year (Arft 1993).

Because of the unique anatomy of orchid flowers, only certain insects can accomplish pollination. Reproduction of the Ute ladies'-tresses orchid is strictly sexual, with bumblebees (*Bombus spp.*) and

anthophorans (*Anthophora spp.*) as the primary pollinators (Sipes and Tepedino 1995). These insects visit the orchids for the nectar and pollination is accomplished incidentally.

Status and Distribution

The Ute ladies'-tresses was federally listed as threatened on January 17, 1992 (57 FR 2048) in its entire range. No critical habitat has been designated for the species. To date, no recovery plan has been approved for this species; however, a draft recovery plan has been written (USFWS 1995).

Threats

Factors that could affect Ute ladies'-tresses include natural or human-directed disturbances, such as the modification of the hydrology, increased recreation use, introduction or proliferation of invasive species, improper herbicide use, reduction or loss of pollinators, and improper season and stocking rate of livestock grazing (USFWS 1995). Also, hay mowing or fire may hinder maintaining habitat in suitable condition for the orchid by reducing cover, litter, and weeds, especially when these occur during the flowering period (Arft 1995; Moseley 1998).

Many Ute ladies'-tresses locations are in more mountainous or rural locations and are not as susceptible to the direct effects of urban development; however, some scattered locations are subject to rural development such as gravel pit excavations, irrigation diversions, and construction of irrigation canals, roads, and bridges. Channelization of waterways and construction of levees that isolate a stream from its floodplain prevent formation and maintenance of suitable habitat (USFWS 2003). It also eliminates periodic disturbances that remove competitive shrub stands which also re-saturates and rejuvenates old and new habitats (Moseley 1998, Fertig 2000; USFWS 2003).

Recreational development may cause either direct (placing trails or campgrounds in occupied or suitable habitat) or indirect (changes in hydrology or spread of invasive species) impacts to Ute ladies'-tresses (USFWS 2003). Campground facilities, road and parking lot construction and improvements, trails, and fisheries improvements result in increased access to and use of riparian and wetland areas that support Ute ladies'-tresses. Water-related activities are a common concern for continued viability of Ute ladies'- tresses throughout Wyoming (USFWS 2003).

A newly emerging and potentially serious threat to the orchid range wide is the proliferation of invasive native and non-native plant species. Ute ladies'-tresses is susceptible to below-ground competition, such as from strongly rhizomatous species, or above-ground competition that reduces light such as taller trees and shrubs. Tamarisk (*Tamarisk spp.*) is of particular concern as it readily invades newly formed habitat before Ute ladies'-tresses can become established, is extremely competitive, and may change soil surface chemistry through deposition of salty leaf litter. Management of invasive species, while a high priority for many agencies and those in the public, requires a high and continuous investment in labor and other resources in order to achieve success. This effort is often difficult to sustain over time.

Q.3.14 Western prairie fringed orchid (*Platanthera praeclara*)— Endangered

Species/Habitat Description

The western prairie fringed orchid (*Platanthera praeclara*) is distinguished by its large flowers (up to $1\frac{1}{2}$ inches in length), large angular column, and broadly triangular petals. The lateral lobes of the lip on the western species are often, but not always, narrower than those on the eastern species. The western prairie

fringed orchid is a stout, erect, long-lived perennial with a showy open raceme (spike) of up to two dozen white to creamy white flowers often an inch or more in size, each with a long nectar spur. The sepals of the orchid are tinged with pale green. The lip, or lower petal of each flower is deeply three-lobed and fringed. The single smooth stem can grow from 2 $\frac{1}{2}$ to 4-feet tall. There are two to five simple, elongate leaves which are thick and hairless.

The western prairie fringed orchid occurs most often in remnant native prairies and meadows. It has also been observed at disturbed sites such as oil fields and roadside ditches. In the southern part of its range it is more likely to be found in mesic upland prairies and in the north in wet prairies and sedge meadows. It is also known from prairies and swales in sand dune complexes that are fed by shallow underground water.

Life History

The western prairie fringed orchid is a long-lived perennial. It emerges in May and blooms in June through July in the northern parts of its range. The orchid is a plant of the tall grass prairie and requires direct sunlight for growth. The flowers are fragrant at night and are pollinated by large sphinx moths, which is required for seed set. Any threat to these insects, such as the use of insecticides, is a threat to the western prairie fringed orchid.

Status and Distribution

On September 28, 1989, the western prairie fringed orchid was classified as endangered under the ESA. The western prairie fringed orchid is known to occur in seven U.S. states and one Canadian province. It was first documented by the Lewis and Clark expedition. The species' historic range extends from the Red River valley of Manitoba, Minnesota, and North Dakota, spreading southeastward to Iowa and Missouri and westward to northeastern Oklahoma, eastern Kansas, central Nebraska and eastern South Dakota. (Sather 1991).

The western prairie fringed orchid is not known to occur in Wyoming. As the species requires the maintenance of functional and dynamic tallgrass prairie, it is unlikely that the species will ever be found to occur within the state. The potential for effects is limited to depletion issues surrounding the Platte River drainage basin, although no critical habitat is designated for this species.

Threats

Because the species does not occur in the state of Wyoming, threats to the species within the state would only occur from water depletions. Since 1978, the USFWS has consistently found through formal Section 7 consultations with federal agencies that actions resulting in depletions to flows in the Platte River system are likely to jeopardize the continued existence of one or more federally-listed threatened or endangered species and adversely modify critical habitat (Instruction Memorandum No. WY-2007-039).

Q.3.15 Whitebark Pine (Pinus albicaulis) – Threatened

Species/Habitat Description

Whitebark pine can grow to 12-18 m tall (40–60 ft) and, rarely, up to 1.5 m (5 ft) in diameter. They are shorter, or even shrub-like, in Krummholz form, at higher, windier elevations. The bark is thin, scaly, and grayish. Their needles are 4-10 cm long (1.5-3 in), in clumps of 5 at the ends of upswept branches. Being monoecious, both smaller male pollen cones (typically scarlet in full bloom) and larger female seed-bearing cones grow on the same tree. The purple to dark brown female cones grow 5-8 cm long (2-3 in) on the branch tips of the upper tree. Unlike other pines, the scales don't open at maturity to release their seeds.

Whitebark pine commonly grow on ridges and just below tree line between 4300–12,100 ft, at higher elevations than most other pines. Their fast growing, deep roots and stout stems buffer them from strong and desiccating mountain winds. They range from southwest Canada south to the Sierra Nevada in California and east to northern Nevada and Wyoming.

Life History

Whitebark pine rely heavily on the Clark's nutcracker (*Nucifraga columbiana*) for reproduction. The nutcracker's stout, straight beak can dig through the unopened scales of a mature pine cone for its seeds. The pea-sized seeds are roundish, wingless, and larger than other conifer seeds. Carrying the seeds in a pouch under its tongue, the bird buries them in shallow soil caches, sometimes up to 10 km away. Nutcrackers are known to cache up to 90,000+ seeds in a good seed crop year! The lucky seeds that escape the nutcracker's sharp spatial memory for finding them again often sprout. Slow-growing, the whitebark pine takes 25 to 30 years to begin producing cones. The cones take 2 years to mature. Peak cone production begins at 60 to 80 years and continues for several hundred more.

Status and Distribution

Whitebark pine has the largest distribution of any five-needle white pine in North America, but whitebark pine health is deteriorating rapidly across its range, particularly in the Rocky Mountains, Pacific Northwest, and northern Sierra Nevada.

Threats

Whitebark pine was listed as Threatened under the Endangered Species Act in December of 2020. Whitebark pine are in steep decline throughout their range from a combination of factors. Warmer temperature trends have triggered epidemic outbreaks of the mountain pine beetle (*Dendroctonus ponderosae*) and lowered the trees' resistance to white pine blister rust, caused by a nonnative fungus (*Cronartium ribicola*), both of which have killed millions of trees. Historical fire suppression allowed the march of more shade-tolerant competitors into whitebark pine habitat, replacing this species through succession.

Q.4 DESCRIPTION AND EFFECTS OF PROPOSED RMP

Q.4.1 Description of Proposed RMP Actions

Physical Resources

The physical resources program includes management actions for air quality, soil, geologic, water, and lands with wilderness characteristics.

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement (Actions 1000-1017)..

Management actions in the Proposed RMP for soil and geologic resources include maintain or improve soil health (Action 1100), apply guidelines and appropriate measures to all management actions for soil health, erosion and sedimentation, stability, support the hydrologic cycle, minimize or control elevated concentration of salts and sediment loading from federal lands to the Colorado River system, , manage soil resources using BMPs, and coordinate with NRCS prior to approval of surface disturbance. (Actions 1101-1106), avoidance and mitigation of surface disturbing activities in areas of low reclamation potential

(Actions 1107 and 1108), monitoring of channel crossings (Action 1109), Inventory, evaluate, maintain, or improve existing landscape-level or site-specific watershed improvement projects where necessary (Action 1110), construct projects to protect soils in partnership with private, local, state, tribal, and federal programs (Action 1111), reduction of erosion and sediment yield (Action 1112), and protection and reclamation (Actions 1113-1116).

Management actions in the Proposed RMP for water resources include assessment, maintenance, rehabilitation, and reclamation of water control structures (Action 1300), acquisition of watershed resources (Action 1301), erosion control, reduction of sediment, phosphate and salinity (Actions 1302-1310), Manage wetlands and floodplains in accordance applicable laws and policy. Require projects to improve the ecological integrity of the dunal ponds in any associated activity planning. (Actions 1311), protection of wetlands, riparian areas, and perennial streams (Actions 1313-1316), management and protection of aquifer recharge areas (Actions 1317-1320), acquisition of water rights (Action 1322), and avoidance of herbicides and pesticides (Action 1324).

Management actions in the Proposed RMP for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas (Actions 1500-1517).

Mineral Resources

The mineral resources program includes management actions for locatable minerals, leasable minerals, and salable minerals.

Management actions in the Proposed RMP for locatable minerals identify open areas, and areas that withdrawal from locatable minerals will be pursued (Actions 2000-2001).

Management actions in the Proposed RMP for leasable minerals include actions specific to geothermal, oil and gas, geophysical exploration, and solid leasable minerals. The solid leasable minerals portion includes coal, sodium/trona and oil shale. Management for geothermal includes identification of open areas and community use (Action 2100-2102). Management described in the oil and gas actions include downhole spacing and conditions of approval (COA) (Actions 2200-2201), identification of suspensions, open areas, and closures (Actions 2202-2210 and 2212-2219). Management described in the geophysical exploration actions includes description of the assessment and approval of geophysical activities (Action 2300). Management described in the coal section of the solid leasable minerals program includes identification of open and closed areas (Actions 2400-2403, and 2407), and evaluations of development potential (Actions 2404-2406). Management described in the trona/sodium portion of the solid leasable minerals program includes identification of open and closed areas, as was areas available for leasing (Actions 2408-2411). Management described in the oil shale portion of the solid leasable minerals program includes identification of open and closed areas, as was areas available for leasing (Actions 2408-2411). Management described in the oil shale portion of the solid leasable minerals program includes identification of open and closed areas, as was areas available for leasing (Actions 2408-2411).

Management actions in the Proposed RMP for salable minerals include identification of land open and closed to salable minerals (Actions 2500-2502), establish new community pits and localized common use areas on a case-by-case basis (Action 2503), establishment of new mineral material sites on a case-by-case basis (Action 2504), prohibition and closure of topsoil areas (Action 2505), reclaim saleable mineral pits no longer in use (Action 2506), and allowing for collection of petrified wood (Action 2507).

Fire and Fuels Management

Management actions in the fire and fuels program include managing fire and fuels consistent with local plans and in coordination with landowners, affected partners and local governments (Actions 3000, 3001 and 3003), emergency stabilization and rehabilitation (Action 3002), management of wildland urban

interface (WUI) areas (Action 3004), prioritizing suppression actions (Actions 3005-3006, and 3012), use of heavy equipment (Action 3007), use of aerial suppression agents (Action 3008), and areas where prescribed fire is allowed and prohibited (Actions 3011 and 3013).

Biological Resources

The biological resources program includes management actions for forest and woodlands, vegetation, riparian and wetland, fish and wildlife, and wild horses.

Management actions in the Proposed RMP for forest and woodlands include conducting vegetation management and timber sale activities in accordance with best management practices (BMP), and in cooperation with private, state and federal managers (Actions 4000-4001), managing forest and woodland health for vegetation health for the benefit of other resources (Actions 4002-4009), permitting the collection/harvest of other forest products (Action 4010), identification of appropriate cutting methods and times (Actions 4011-4014), slash disposal (Action 4015) leaving harvested areas to revegetate naturally, and replanting those areas that aren't successful (Action 4016), and stand management (Actions 4017-4024).

Management actions in the Proposed RMP for the grassland and shrubland communities' portion of the vegetation program includes using the best available science in coordination with other local and state expertise (Action 4100), desired plant community objectives (Actions 4102-4103), use of fire and other treatments (Actions 4103-4110), adapting management for treated areas not making significant progress toward objectives (Action 4111), and vegetation treatment design (Action 4112).

Management actions in the Proposed RMP for invasive species and pest management include cooperation and collaboration with local efforts to control invasive plants or noxious weeds (Actions 4200-4201, 4206, 4208 and 4211), utilizing the integrated pest management approach, public education and BMPs to manage noxious weeds and invasive plant species, and limit control to mechanical and biological methods (Actions 4202, 4207), maintaining adequate baseline and ensuring efficient monitoring methods (Actions 4203-4204), appropriate application of pesticide or herbicide (Actions 4205, 4212 and 4213), and inspection and cleaning or decontamination of fire suppression equipment (Action 4210).

Management actions in the Riparian and Wetland Resources section include: achieve PFC and/ maintained standards, address negative trends, manage for late successional stage, maintain, improve or restore habitats, pursue additional acreage (Actions 4300-4303).

Management actions for fish and wildlife resources in this Proposed RMP are broken down into general wildlife, big game, raptors, special status plants, and special status wildlife.

Management actions in the general wildlife portion of the fish and wildlife resources section of the Proposed RMP include coordination and cooperation with the state wildlife agency (Action 4400), maintain, restore and/or enhance fish and wildlife habitat (Action 4401), guidance for land exchanges and acquisitions (Action 4406), general management guidance for migratory birds (Action 4407) guidance for water developments, and exclosures (Action 4408), guidance for coordination with wildlife services (Action 4412), and development of habitat management plans (Action 4413).

Management actions in the big game portion of the fish and wildlife section of the Proposed RMP include management of wildlife habitat to provide forage to support Wyoming Game and Fish Departments Strategic Habitat Plan (Action 4419), evaluate and adjust grazing schedules at permit renewal if conflicts exist with parturition areas(Action 4420), and management of surface disturbing activities in crucial winter ranges, designated migration corridors, and parturition ranges (Actions 4421-4427).

Management actions in the raptor portion of the fish and wildlife section of the Proposed RMP include: identification of raptor nest sites and management of surface occupancy, surface disturbance and disruptive activities near occupied and historic raptor nests (Actions 4430-4434).

Management actions in the fish portion of the fish and wildlife section of the Proposed RMP include: guidance for management and restriction of surface disturbing and construction activities, linear crossings, and exception requests for timing restrictions (Actions 4435-4436).

The special status species section of the biological resources program includes plants, wildlife, and fisheries.

Management actions in the special status plant species portion of the Proposed RMP include guidance on when to require special status plant species surveys (Action 4600), management of surface disturbing activities, including when to prohibit or restrict activities (Actions 4602-4605, 4608, 4610, 4613, and 4614), guidance on when to pursue acquisition (Action 4607), guidance on determining if they meet criteria for ACEC designation (Action 4609), and guidance on when vegetation treatments and range improvements are appropriate or should be prohibited (Actions 4611-4612).

Management actions in the special status species, wildlife and fisheries portion of the biological resources program include management to protect and improve habitats, and managing habitat for ecological benefits (Action 4617), management of infrastructure and disruptive activities within habitats to protect the species and their habitats (Actions 4619-4620), management specific to protection of special status amphibian and reptiles (Actions 4622), and management of surface disturbing and disruptive activities within mountain plover habitat (Action 4623).

Management actions in the wild horse section of biological resources include management of the Little Colorado Herd Management Area (HMA identify appropriate management level for number of horses in the HMA, and guidance for the preparation of gather plans (Actions 4900-4917).

Heritage and Visual Resources

The heritage and visual resources program include management for cultural, paleontological, and visual resources.

Management actions in the cultural section of the heritage and visual resources program include identification and management of cultural resources in coordination with state and federal regulations (Actions 5000-5004 and 5111-5118), management of prehistoric steatite quarries (Action 5008), guidance for pursuing land exchanges (Action 5009), management of other cultural resources and sites (Actions 5010-5012 and 5100), guidance on the tri-territory site, including closures and exclusions (Action 5107), guidance on management of the West Sand Dunes Archeological District, including renaming it West Sand Dunes Paleosol Deposition area and requiring heritage resource inventories (Actions 5122 – 5123), and guidance on consultation with Tribal leaders, SHPO and proponents (Action 5201).

Management actions in the paleontological section of the heritage and visual resource program include requiring that potential fossil yield classification (PFYC) be a standard part of review for surface disturbing activities (Action 5300) and guidance on management of paleontological resources (Actions 5301-5309).

Management actions in the visual section of the heritage and visual resource program include designating VRM Classes (Action 5400) and management and restrictions of surface disturbing activities to meet the VRM requirements (Actions 5407, 5411 - 5413).

Land Resources

The land resources program includes management for lands and realty, renewable resources, right-of-way (ROW) corridors, livestock grazing, recreation, and off-highway vehicles (OHV).

Management actions in the lands and realty section of the land resources program include restrictions for public health and safety and protection of significant resource values (Action 6000), management guidance for geologic carbon sequestration exploration and site characterization (Action 6001), identification of open areas for realty actions (Actions 6002), stipulations and restrictions for pipeline trenches and abandoned pipelines (Actions 6004-6005), guidance for land withdrawals (Actions 6006-6010), and management guidance for land tenure adjustments (Actions 6012-6014).

Management actions in the renewable energy section of the land resources program include management guidance for cooperation and coordination with other government agencies (Actions 6100-6101), management guidance for policies and BMPs (Actions 6102-6103, 6107,6108), and identification of areas open to renewable energy development and areas closed to renewable energy development (Actions 6104-6106).

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 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 6206-6207, 6210), and management guidance for locating pipelines, power lines, and other utilities (Action 6209).

The management actions in the Backcountry Byways section of the RMP revision include retaining the Wild Horse Scenic Loop Byway, the Tri- Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Little Mountain Loop Byways(Actions 6303-6304), consider additional travel routes that meet the criteria, designate on a case-by-case basis (Actions 6306).

Management actions in the livestock grazing management section of the land resources program include management guidance for providing opportunities for grazing while meeting or making progress towards Wyoming Standards for Healthy Rangelands (Action 6400), management guidance for providing forage for livestock, wild horses, wildlife, while meeting other multiple use objectives (Actions 6401-6403,6410 and 6417), management guidance for authorizing livestock grazing at current active use animal unit month (AUM) levels, and adjusting the AUMs when monitoring or other analysis demonstrates the need (Action 6404), management guidance for closing exclosures and recreation areas to livestock grazing to protect other resource values (Actions 6407-6409), management guidance for the placement of salt and mineral supplements (Action 6411), , incorporation of adaptive management and collaboration with interested parties to examine effects of intense industrial operations on access to the forage base, and applying reasonable and prudent mitigation (Action 6413), and management guidance authorizing livestock conversions and range improvements (Actions 6416).

Management actions in the recreation section of the land resources program include management guidance for allowing commercial and organized events, special recreation permits and other recreation authorizations (Actions 6500, 6503), management of SRMAs, and other identified areas for recreation opportunities (Action 6501), requirements for the health and safety of visitors (Action 6502), management guidance of undeveloped recreation sites, providing consideration for recreation use and other resource values and uses (Action 6504), management guidance for overnight camping, including prohibiting camping within 50 feet of riparian or surface water, and closing areas if resource damage occurs (Action 6505), development of recreation project plans and interpretive prospectus for Sweetwater Campgrounds, Boars Tusk, Leucite Hills and the Continental Divide Snowmobile Trail (Action 6508), limiting of firewood

cutting to downed, dead trees in designated areas within developed recreation sites, and within areas outside of developed recreation sites (Actions 6511-6512), limiting recreation site development projects and access routes along streams and reservoirs (Action 6513), consider development of permanent recreation site and facilities in undeveloped areas (Action 6514), management guidance for allowing surface disturbing activities within ¹/₄ mile of developed recreation sites (Action 6516), restriction of geophysical activities within developed and semi- developed recreation sites(Action 6518), management guidance for development, on a case-by-case basis, of wild horse viewing areas (Action 6519), management guidance for allowing gold panning or causal use related to prospecting (Action 6520), management guidance for the Continental Divide Snowmobile Trail SRMA, for over-the-snow vehicle, hiking, equestrian and mountain bike uses, and designating the area as VRM Class II (Actions 6522-6528), management guidance for the Green River SRMA would include, not retaining the SRMA designation, and designating the area as VRM Class I-IV (Actions 6529-6530), management guidance for the Killpecker Sand Dunes SRMA would include reducing the boundary only include the OHV open play area (Actions 6531 - 6532), management guidance for the Oregon and Mormon Pioneer National Historic Trails would include not retaining the SRMA designation(Actions 6537), management of the little Mountain area, including designating portions of it as a SRMA with a VRM II class (Action 6540, 6541), management guidance for the Wind River Front SRMA would include reducing the area in the SRMA designation (Action 6543, 6544 - 6557).

Management actions in the OHV section of the land resources program include coordination and collaboration with other agencies, governments, communities, and landowners (Actions 6600, 6605), engineering and locating roads and trails to accommodate OHV activities while minimizing impacts and providing management guidance for use (Actions 6601-6604), management guidance for, on a case-by - case closing areas where use has caused adverse effects (Action 6606), identification of open and closed areas (Action 6607), management guidance for permitting, on a case-by-case basis, organized OHV events (Action 6608).

Special Designations

The special designations program for the Proposed RMP include management for congressionally designated trails, wilderness study areas, wild and scenic rivers, management areas, and ACECs.

Management actions in the congressionally designated trails section of the special designations program include management guidance for designation lands within 5 miles of National Historic Trails (Action 7002), management guidance for the designated trail corridors, including allowing mineral leasing and mineral materials with CSU restrictions making the area a ROW avoidance area, allowing mineral material disposals on a case-by-case basis, designating the areas as VRM Class II, except utility crossings, which would be managed as Class III (Actions 7003-7004), management guidance for highly visible projects (Action 7006), allowing major utility systems trail crossings only within identified right of way corridors (Action 7007), prohibiting large, heavy vehicles on contributing segments (Action 7008), allowing geophysical exploration and prohibiting blading (Actions 7009- 7010), management guidance prohibiting segments of the trails from use as industrial access roads (Actions 7011), prohibiting surface disturbing activities in the Parting-of-the-Ways historical site and retaining the existing mineral withdrawal (Actions 7013), management guidance for new audible and atmospheric affects along NHT corridors (7014), management for the Dry Sandy Swales segment(7015,7016), management guidance for trails that are eligible but not designated, including management of actions within 500 feet of a contributing segment being an NSO for fluid minerals, closed to mineral materials sales, and designated as a ROW avoidance area (Actions 7017-7019), management guidance for allowing geophysical activities (Action 7020).

The management actions in the wilderness study area section of this Proposed RMP provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class (Actions 7100-7102).

Management actions in the wild and scenic rivers section of the special designations program include identification of areas that meet the suitability factors for designation, and which areas would be designated as wild or scenic (Actions 7200-7202), management guidance for the areas designated as wild, including making them ROW exclusion areas, prohibiting surface disturbing activities other than those that maintain or enhance the river, closing those areas to mineral leasing and related exploration, closing the areas to mineral materials sales, prohibiting land disposal actions, designating the areas as VRM Class II, limiting geophysical exploration, prohibiting use of motorized and non-motorized vehicles for geophysical exploration, limiting other motorized and non-motorized vehicle use to designated roads, and prohibiting commercial timber sales and harvesting (Actions 7203, 7218, 7221-7226). Management guidance for rivers with the scenic classification would include maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values, and the relatively unmodified character of the area, limiting geophysical exploration to foot access and prohibiting motorized and non-motorized vehicles, limiting other motorized and non-motorized vehicle use to designated roads, prohibiting use of mountain bikes on trails, and prohibiting commercial timber sales and harvesting (Actions 7227-7230). Management actions for the recreational classification include focusing interim management of parcels potentially meeting the recreation classification on maintaining or enhancing historic, scenic and recreational values, limiting geophysical exploration to foot access, and limiting other motorized and non-motorized access to designated roads, prohibiting the use of mountain bikes on trails, and prohibiting commercial timber sales and harvesting (Actions 7231-7234).

Management actions in the Management Areas section of the Special Designations program include maintaining or enhancing resource values for areas designated as special management areas, ensuring concepts of open space are maintained, analyze and prioritize increases in vegetation production, restrict travel off of designated roads (Actions 7300 - 7304). Other actions include management guidance for the Red Desert Watershed area which would reduce the size of the area, designate it as VRM Class II, allow surface disturbing activities subject to mitigation, manage important wildlife habitats for no-net-loss, designate as a ROW avoidance area, manage WSA portions as exclusion areas (Actions 7305-7311). The Pine Mountain Management Area would be designated as a ROW avoidance area, livestock grazing objectives would be managed on a case-by-case basis to be with other resource objectives, restrictions for protection on raptors would apply, the area would be managed consistent with the Class III VRM classification, recreation developments would be kept to a minimum and designed for the protection of resource values, would be open to consideration of activities that conform with objectives of the area (Actions 7312-7324). Management guidance for the Sugarloaf Basin Management Area will include retaining it as a management area, designating as a ROW avoidance area outside of any designated ROW corridors, allow surface disturbing activities if the operator and BLM arrive at an acceptable plan for avoidance, minimization, rectification, and/or restoration within the area, managing habitats for no-net-loss of habitats, allow surface disturbing and disruptive activities subject to adequate mitigation, designating the area as VRM Class III, and recreation developments would be kept to a minimum and designed primarily for the protection of resource values (Actions 7329-7335). The Pinnacles Geologic Area will be designated as the Pinnacles ACEC and will have the following management: limiting surface disturbance to actions that would preserve or enhance the values of the area, petition to segregate and pursue withdrawal from mineral location, close to mineral materials sales and solid mineral leasing, designate as a ROW exclusion area, manage the Pinnacles Geologic Feature as a portion of the ACEC (Action 7336-7339).

Management actions in the ACEC section of the special designations program include protecting and enhancing the relevant and important values, allowing activities on a case-by-case basis that conform to objectives, analyze and prioritizing any increases in vegetation production for watershed stabilization and improvement, wildlife forage, before considering livestock, and restricting heavy firefighting equipment to designated roads and trails, unless protecting life, property, and resource values (Actions 7400-7403).

Management guidance specific to the Greater Red Creek ACEC include retaining the ACEC designation, renaming it the Little Mountain ACEC and adjusting the northern boundary to exclude the checkerboard land from the ACEC (Action 7418), manage the Sage, Currant and Red Creek portions in support of watershed stability and Colorado River cutthroat trout habitat management objectives (Action 7419), and management will include emphasis on maintaining or improving important wildlife habitat..., close to fluid mineral leasing, petition to segregate and pursue withdrawal from mineral location,, designate as a ROW avoidance area, designate as VRM Class II, evaluate livestock grazing objectives management practices to be consistent with other resource values, manage forested areas primarily toward meeting riparian, watershed, and other objectives of the ACEC, evaluate on a case-by-case basis, fire management, suppression needs, and prescribed burning in timer stands to ensure stands are maintained in healthy condition, and allow onsite recreation controls and facilities only for resource protection and the safety of users, limit motorized vehicle use to designated roads and trails, apply a no net gain in roads, (Actions 7418-7428). Management specific to the Red Creek Portion of the Greater Red Creek ACEC includes allowing activities that are designed to reduce sediment, siltation, or erosion, and the rerouting or maintenance of roads to meat area objectives, and to require the completion of a grazing management plan prior to authorization of livestock use in the allotment (7439 – 7443). Management guidance specific to the Greater Sand Dunes ACEC includes; retain the Western portion of the Greater Sand Dunes ACEC, designate VRM classes as shown in RMP, designate the Greater Sand Dunes area and public land within one mile or the visual horizon, whichever is closer, as a ROW avoidance area, close to mineral material sales, manage to protect and improve the dunal ponds and retain the Tri-Territory backcountry byway designation (7446 - 7453). Other management includes managing the relatively pristine portion of the eastern area to protect big game habitat, vegetation communities, and visual and recreation resources (Action 7464). Activities would not be permitted to disrupt access or use of the developed recreation sites, and activities that are incompatible with recreation sites would be managed to avoid those sites(7465).

Management would also include: restrict activities seasonally on crucial big game winter ranges, big game birthing areas, and sage-grouse nesting habitat and winter concentration areas, require closed loop drilling systems, prohibit reserve pits, do not allow dune ponds to be used as water sources for development, designate the eastern portion as a right-of-way exclusion area, designate active sand dune areas as open to off-road vehicles, and limit offroad travel on stabilized dunes to existing roads and trails (7463 – 7470)..Management for the Boars Tusk portion of the Greater Sand Dunes ACEC includes: retain a ACEC designation, manage as an exclusion area for ROWs, close the area to mineral location, mineral material sales and leasable minerals, pursue a withdrawals, limit surface disturbing activities, discourage OHV use, prohibit facilities on talus slopes, continue to close to climbing activities, close and reclaim the road around the geologic feature, designate as a VRM Class II, restrict surface disturbing activities seasonally on crucial areas. (Actions 7455-7462). Management guidance specific to the Crookston Ranch portion of the Greater Sand Dunes ACEC include: retain as part of the ACEC, designate as an exclusion area for rights-of-ways, close to mineral location, mineral material sales, and leasable minerals, limit surface disturbing activities, edisturbance activities, suppress fires, and prohibit off-highway vehicle use (Actions 7471 – 7476).

Management guidance specific to the Natural Corrals ACEC include: retain the ACEC, close it to fluid mineral exploration and development, prohibit surface disturbing activities, close to mineral materials sales, allow solid leasable mineral mining by subsurface methods only, designate as a ROW exclusion area, retain the mineral location withdrawal, designate as VRM Class II, close prehistoric site to OHV use, vehicles used for geophysical activities, over the snow vehicles, use of explosives and blasting, and allow placement of temporary wild horse traps provided the management actions of the area can be met (Actions 7477-7485). Management guidance specific to the Oregon Buttes ACEC include: retain the ACEC designation, designate as a rights-of-way exclusion area, close to mineral material sales, mineral exploration and development activities, prohibit OHV use for any purpose, and designate as VRM Class II (Actions 7486-7489). Management guidance specific to the Pine Springs ACEC include: retain the ACEC and expand its boundaries, , prohibit surface disturbing activities, retain the withdrawal from mineral location, close to

mineral material sales and solid mineral leasing, designate as a ROW exclusion area, close to geophysical operations and the use of blasting and explosives, allow consideration of fencing and other barriers to ensure protection to the area, close to additional spring development, and designate as VRM Class II (Actions 7490-7497). Management guidance specific to the South Pass Historic Landscape ACEC include: retain the ACEC designation, designate areas as VRM Class II, 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, designate as a CSU for fluid minerals, closed to oil shale, pursue proposed withdrawal for mineral location, allow placement of temporary wild horse traps provided the management objectives of the area can be met (Actions 7498-7506). Management actions specific to the Special Status Plant Species ACEC include retaining the ACEC and modify it (Actions 7508-7509). Other management includes: Prohibit surface disturbing activities, stipulate as an NSO for fluid minerals, petition to segregate and pursue a withdrawal from mineral location, close to mineral material sales, close to solid mineral leasing, designate as a ROW exclusion area, prohibit use of explosives and blasting, and prohibit placement of wild horse traps within the ACEC (Actions 7508-7514). Management actions specific to the Steamboat Mountain ACEC include retaining the ACEC and expanding (Action 7516). Other management include: priority consideration on relevance and importance values, designate as an exclusion area, designate as an NSO. Close to mineral material sales and use of explosives and blasting, consider leasing and development of federal coal in the area only for subsurface mining methods, ensure adequate measures are taken to protect and maintain the elk herd and its, open the ACEC to actions that would enhance the management objectives for the area. Actions that could be considered include fencing, interpretive signs, or construction of vehicle barriers, apply appropriate surface use and seasonal restrictions, designate as an exclusion area for rightsof-way, Allow vehicle travel on designated roads, designate as VRM Class I and II objectives (Actions 7516-7529). Management actions specific to the White Mountain Petroglyphs ACEC include: retain the ACEC designation, ensure protection of the site, designate the as an exclusion area, retain the existing withdrawal, and close the area to mineral material sales (Actions 7530 – 7532). Other management includes; designate as VRM Class II, allow geophysical activities provided they are at least one mile from the rock art site, prohibit other kinds of activities if the sacred Native American values would be adversely affected, Manage petroglyphs and the surrounding setting (within three miles) to protect its cultural and historical values, designate lands visible within a three-mile radius as open for consideration of activities to ensure protection to the rock art site, , close the ACEC to vehicle travel (Actions 7533 - 7537). Management actions specific to the South Wind River ACEC include; designate as an ACEC, prohibit surface disturbing activities or facilities on or within three miles of the trail or the Visual Horizon of the Continental Divide National Scenic Trail, the Continental Divide Snowmobile trail, and the South Pass Cross Country Ski Trail, designate as VRM Class II, designate the ACEC an exclusion area to mineral material sales, close to mineral leasing, limit vehicle use to designated roads and trails, apply surface use restrictions, and (Actions 7538-7547). Management Actions for the Big Sandy Openings ACEC include; Designate as an ACEC, designate as VRM Class II, minimize surface disturbance, designate the ACEC an exclusion area for ROWs, surface disturbing activities mineral material sales, and mineral location, close the area to mineral leasing, and limit vehicle use to designated roads and trails (Actions 7563-7567). Management specific to National Historic Landmarks would use the same boundary as the South Pass Historic Landscape ACEC, until a formal NHL boundary is designated (Action 7570).

Socioeconomic

Management actions for the socioeconomic resources program include reducing or minimizing risk to humans and the environment from hazardous materials on BLM-administered lands within the planning area, preventing waste contamination due to BLM-authorized actions, integrating hazardous materials and waste management policies and controls into all BLM programs, manage risks to public health, safety and environment posed by human-caused hazards and/or geologic hazards on the National System of Public Lands, reduce or eliminate hazards, where possible, from abandoned mine lands, collaborate with Wyoming Department of Environmental Quality (WDEQ) for abandoned mine land sites, Manage risk to public safety

and the environment associated with hazardous substances, wastes, and materials to ensure restoration of contaminated lands and carry out response activities, test pits associated with oil and gas activities that contain produced water or drilling fluids at well sites or other locations for TCLP constituents, operator will pay costs for testing and proper disposal, identify Abandoned Mine Lands sites with warning signage and consider adding protective fencing where appropriate.(Actions 8000-8007).

Q.4.2 Canada Lynx (*Lynx canadensis*)—Threatened

Effects of Selected Alternative

Physical Resources

The physical resources program includes management actions for air quality, soil, geologic, water, and lands with wilderness characteristics.

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement and would have no impacts to Canada lynx.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation, and other areas related to soil and geologic resources. These actions do not authorize any activities that would impact Canada lynx or their habitat.

The management actions for the water resources section of this RMP revision/EIS provide management guidance for the protections and management of surface and ground water within the planning area. These actions do not authorize any activities that would impact Canada lynx or its habitat, so no impacts are anticipated.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics (deal with acquisition and/or general management of the identified areas and will have no impacts on Canada lynx.

Mineral Resources

Management actions in the RMP/EIS Preferred Alternative for locatable minerals do not authorize any activities that would have impacts on Canada lynx or their habitat.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities, and other actions throughout the RMP revision/EIS restrict or close areas within lynx habitat to leasable minerals, and no impacts to Canada lynx or their habitat will occur from these actions.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities, and other actions throughout the RMP revision/EIS restrict or close areas within lynx habitat to leasable minerals, and no impacts to Canada lynx or their habitat will occur from these actions.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. Although these actions do not authorize any activities, the use of heavy equipment during wildfire suppression, and the removal of trees and understory during fuels treatment projects may have an impact on Canada lynx and their habitat.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. However, forest and woodland management activities within the planning area may have impacts to Canada lynx through removal of trees and understory in lynx habitat, which may alter or restrict movement of lynx and/or its prey.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources and would occur in areas not identified as lynx habitat. There will be no impacts to Canada lynx or their habitat from the management actions related to grassland and shrubland communities.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. Because application of chemicals and other methods to control invasive species and pests under these management actions would be a very specific, defined, site-specific process, no impacts to Canada lynx from these management actions are expected.

The management actions for Riparian and Wetland Resources provide guidance for managing, improving, and restoring habitats, and will have no impacts to Canada lynx or their habitat.

The management actions in the general wildlife section of this revision are designed to provide protections and generally guide management of wildlife habitat in the planning area. The management actions in this section are general, and more specific management actions will be discussed in the following sections, so no impacts to Canada lynx are anticipated from these actions.

The management actions in the big game portion of the fish and wildlife section of this revision are designed to provide protections to important winter and parturition habitat for big game. These habitats overlap identified lynx habitats within the planning area and would minimize any impacts to Canada lynx by limiting disturbance, especially during the crucial winter months.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors, and they will have no impacts on Canada lynx.

The management actions in the fish portion of the fish and wildlife section of this revision are designed specifically to provide protections for fish species and their habitats and will have no impacts on Canada lynx.

The management actions in the special status plants portion of the biological resources program in this RMP revision/EIS are designed to specifically provide protections for special status plants. These actions should have no impacts on Canada lynx.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. This includes
threatened and endangered species, such as the Canada lynx. These actions do not authorize any activities that would cause disturbance or disruption to Canada lynx or their habitat, therefore, there would be no impacts from these actions.

The management actions in the wild horse portion of biological resources are designed to provide for the management of the Little Colorado HMA. This HMA does not contain habitat for Canada lynx, so there will be no impacts to lynx from these actions.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. These actions do not authorize any surface disturbing or disruptive activities and should have no impacts on Canada lynx.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. No known sites exist within the identified lynx habitat in the planning area, so no impacts to Canada lynx are expected.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes and will have no impacts to Canada lynx.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. These actions are general and do not authorize any impacts that would affect Canada lynx.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. The portions of the planning area that contain identified lynx habitat are ROW exclusion or avoidance areas, so there would be no impacts to Canada lynx or their habitat from these actions.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. No identified or proposed corridors occur within lynx habitat, so there would be no impacts to Canada lynx.

The management actions in the Backcountry Byways section include guidance for retaining existing backcountry byways, and would have no impact on Canada lynx and their habitat.

The management actions in the livestock grazing management section in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area.

Livestock grazing is permitted in lynx habitat within the planning area and may have some impacts through the removal of vegetation used as hiding cover for Canada lynx and their prey.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. Overall the management actions will have no impacts to Canada lynx.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area, including limiting use to designated roads and trials, as well as

identifying closed and open area. Based on the management identified, there should be no impacts to Canada lynx.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. These actions themselves do not authorize any activities that would have an impact on Canada lynx, so no impacts are expected to Canada lynx or their habitat within the planning area.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations, as well as designation of their current VRM Class. None of these actions authorize any disturbing or disruptive activities and would have no impact on Canada lynx or their habitat within the planning area.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. None of the management actions authorize any activities that would have an impact on Canada lynx, so no impacts are expected to Canada lynx or their habitat within the planning area.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. These actions do not authorize any surface disturbing or disruptive activities, and none of these areas contain identified Canada lynx habitat, so no impacts to Canada lynx or their habitat is expected within the planning area.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. These actions do not authorize any surface disturbing or disruptive activities, and no impacts to Canada lynx or its habitat are expected within the planning area.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. These actions do not authorize any surface disturbing or disruptive activities and will have no impacts on Canada lynx or their habitat within the planning area.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively effect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Livestock grazing on private lands
- Timber harvesting on private lands

- Subdivision development
- Recreation
- Coal mine operations
- Transmission lines
- Seismic exploration.

Implementation of the RMP revision/EIS would not change any potential effects to the Canada lynx, or its habitat, that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Any proposed projects that may have an impact on threatened or endangered species would have consultation completed at that time. Other than the actions/programs discussed below, the actions in the RMP revision/EIS have been determined to have "No Effect" on Canada lynx. There is no critical habitat for Canada lynx in the RMP planning area.

Within the fire and fuels program, the use of heavy equipment for fire suppression, as well as the removal of vegetative cover during the completion of fuels projects, may have impacts to Canada lynx by removal of hiding cover for both the lynx and its prey species. Although there are several Lynx Analysis Units within the planning are, there is no designated critical habitat, and no lynx sightings have been reported in a number of years, so the impact would be expected to minimal, and a "May Affect, Not Likely to Adversely Affect" determination has been made.

Within the biological resources program, actions in the forest and woodlands section have been identified as potentially having an impact. Removal of vegetation during timber sale operations may reduce vegetative hiding cover for Canada lynx or their prey. Although there may be an impact, no critical habitat exists in the planning area, and any project that may be authorized would have consultation completed at that time. Any project completed on BLM-administered lands would have to be designed to minimize impacts to resources, including Canada lynx and their habitat. Based on these factors, a determination of "May Affect, Not Likely to Adversely Affect" has been made for the forest and woodlands management actions.

Within the land resources program, actions in the Continental Divide Snowmobile Trail SRMA would not be retained. However, the trail would still be open for over- the-snow vehicles and may have an impact by creating trails in the snow that would allow for prey to more easily escape from Canada lynx. Although this may be an impact, the trail occurs mostly on existing roads within the lynx habitat in the planning area, and impacts are anticipated to be minimal. Based on these factors, a determination of "May Affect, Not Likely to Adversely Affect" has been made for the actions for the Continental Divide Snowmobile Trail.

Within the land resources program, actions in the OHV section have been identified as potentially having an impact. Over-the-snow vehicles could still cause impacts similar to those listed above for the Continental Divide Trail SRMA. Based on those factors, a "May Affect, Not Likely to Adversely Affect" determination has been made for the OHV actions.

Q.4.3 Grizzly Bear (Ursus arctos horribilis)—Threatened

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement, and would have no impacts to grizzly bear.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation, and other areas related to soil and geologic resources. These actions do not authorize any activities that would impact grizzly bear or their habitat.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics (Actions 1500-1517) deal with acquisition and/or general management of the identified areas and will have no impacts on grizzly bear.

Mineral Resources

Management actions in the RMP/EIS Preferred Alternative for locatable minerals identify open and closed areas and do not authorize any activities that would have impacts on grizzly bear or their habitat.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities, and other actions throughout the RMP revision/EIS restrict or close areas within the bear's habitat to leasable minerals, and no impacts to grizzly bear or their habitat will occur from these actions.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities, and other actions throughout the RMP revision/EIS restrict or close areas within grizzly bear habitat to leasable minerals, and no impacts to grizzly bear or their habitat will occur from these actions.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. Although these actions do not authorize any activities, the use of heavy equipment during wildfire suppression, and the removal of trees and understory during fuels treatment projects may have an impact on grizzly bear and their habitat.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. However, forest and woodland management activities within the RMP planning area may have impacts to grizzly bear through removal of trees and understory in bear habitat, which may alter or restrict movement of grizzly bear.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources and would occur in areas not identified as grizzly bear habitat. There will be

no impacts to grizzly bear or their habitat from the management actions related to grassland and shrubland communities.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. Because application of chemicals and other methods to control invasive species and pests under these management actions would be a very specific, defined, site specific process, no impacts to grizzly bear from these management actions are expected.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. The management actions in this section are general, and more specific management actions will be discussed in the following sections, so no impacts to grizzly bear are anticipated from these actions.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. These habitats overlap identified grizzly bear habitats within the planning area and would minimize any impacts to grizzly bear by limiting disturbance, especially during crucial time periods.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors, and they will have no impacts on grizzly bear and their habitat.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats and will have no impacts on grizzly bear and their habitat.

The management actions in the special status plants portion of the biological resources program in this RMP revision/EIS are designed to specifically provide protections for special status plants. These actions should have no impacts on grizzly bear and their habitat.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. This includes threatened and endangered species, such as the grizzly bear. These actions do not authorize any activities that would cause disturbance or disruption to grizzly bear or their habitat; therefore, there would be no impacts from these actions.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. None of the HMAs within the planning area contain habitat for grizzly bear, so there will be no impacts from these actions.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. These actions do not authorize any surface disturbing or disruptive activities and should have no impacts on grizzly bear and their habitats.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. No known sites exist within the identified grizzly bear habitat in the planning area, so no impacts to grizzly bear or their habitats are expected.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes and will have no impacts to grizzly bear or their habitats.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. These actions are general and do not authorize any impacts that would affect grizzly bear or their habitats.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. The portions of the planning area that contain identified grizzly bear habitat are ROW exclusion or avoidance areas, so there would be no impacts to grizzly bear or their habitat from these actions.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. No identified or proposed corridors occur within grizzly bear habitat, so there would be no impacts to grizzly bear or their habitat.

The management actions for livestock grazing in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. Livestock grazing is permitted in grizzly bear habitat within the planning area and may have some impacts through altering or restricting movement of grizzly bear.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. Overall, the management actions will have no impacts to grizzly bear.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. Within identified habitats for lynx in the planning area, no vehicles would be allowed off of designated roads and there would be no impacts to grizzly bear or their habitats.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. These actions themselves do not authorize any activities that would have an impact on grizzly bear, so no impacts are expected to grizzly bear or their habitat within the planning area.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM class. None of these actions authorize any disturbing or disruptive activities and would have no impact on grizzly bear or their habitat within the planning area.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. None of the management actions authorize any activities that would have an impact on grizzly bear, so no impacts are expected to grizzly bear or their habitat within the planning area.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. These actions do not authorize any

surface disturbing or disruptive activities, and none of these areas contain identified grizzly bear habitat, so no impacts to grizzly bear or their habitat is expected within the planning area.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. These actions do not authorize any surface disturbing or disruptive activities, and none of these ACECs contain identified grizzly bear habitat, so no impacts to grizzly bear or its habitat are expected within the planning area.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. These actions do not authorize any surface disturbing or disruptive activities and will have no impacts on grizzly bear or their habitat within the planning area.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Livestock grazing on private lands
- Timber harvesting on private lands
- Subdivision development
- Recreation
- Coal mine operations
- Transmission lines
- Seismic exploration.

Implementation of the RMP revision would not change any potential effects to the grizzly bear, or its habitat, that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Any proposed projects that may have an impact on threatened or endangered species would have consultation completed at that time. Other than the actions/programs discussed below, the actions in the RMP revision/EIS have been determined to have "No Effect" on the grizzly bear.

Within the fire and fuels program, the use of heavy equipment for fire suppression, as well as the removal of vegetative cover during the completion of fuels projects, may have impacts to grizzly bear by removal

of habitat and alteration or restriction of their movement. Any impact would be expected to be minimal, and a "May Affect, Not Likely to Adversely Affect" determination has been made.

Within the biological resources program, actions in the forest and woodlands section have been identified as potentially having an impact. Removal of vegetation during timber sale operations may reduce vegetative hiding cover for grizzly bear. Although there may be an impact, any project that may be authorized would have consultation completed at that time. Any project completed on BLM-administered lands would have to be designed to minimize impacts to resources, including grizzly bear and their habitat. Based on these factors, a determination of "May Affect, Not Likely to Adversely Affect" has been made for the forest and woodlands management actions.

Q.4.4 North American Wolverine (Gulo gulo luscus)

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement, and would have no impacts to wolverines.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation, and other areas related to soil and geologic resources. These actions do not authorize any activities that would impact wolverines or their habitat.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics (Actions 1500-1517) deal with acquisition and/or general management of the identified areas and will have no impacts on wolverines.

Mineral Resources

Management actions in the RMP/EIS Preferred Alternative for locatable minerals identify open and closed areas and do not authorize any activities that would have impacts on wolverines or their habitat.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities, and other actions throughout the RMP revision/EIS restrict or close areas within the wolverine's habitat to leasable minerals, and no impacts to wolverines or their habitat will occur from these actions.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities, and other actions throughout the RMP revision/EIS restrict or close areas within wolverine habitat to leasable minerals, and no impacts to wolverines or their habitat will occur from these actions.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. Although these actions do not authorize any activities, the use of heavy equipment during wildfire

suppression, and the removal of trees and understory during fuels treatment projects may have an impact on wolverines and their habitat.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. However, forest and woodland management activities within the RMP planning area may have impacts to wolverines through removal of trees and understory in bear habitat, which may alter or restrict movement.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources and would occur in areas not identified as wolverine habitat. There will be no impacts to wolverines or their habitat from the management actions related to grassland and shrubland communities.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. Because application of chemicals and other methods to control invasive species and pests under these management actions would be a very specific, defined, site specific process, no impacts to wolverines from these management actions are expected.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. The management actions in this section are general, and more specific management actions will be discussed in the following sections, so no impacts to wolverines or their habitat are anticipated from these actions.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. These habitats overlap identified wolverine habitats within the planning area and would minimize any impacts to wolverines by limiting disturbance, especially during crucial time periods.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors, and they will have no impacts on wolverines and their habitat.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats and will have no impacts on wolverines and their habitat.

The management actions in the special status plants portion of the biological resources program in this RMP revision/EIS are designed to specifically provide protections for special status plants. These actions should have no impacts on wolverines and their habitat.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. This includes threatened and endangered species, such as the wolverine. These actions do not authorize any activities that would cause disturbance or disruption to wolverines or their habitat; therefore, there would be no impacts from these actions.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. None of the HMAs within the planning area contain habitat for wolverines, so there will be no impacts from these actions.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. These actions do not authorize any surface disturbing or disruptive activities and should have no impacts on wolverines and their habitats.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. No known sites exist within the identified wolverine habitat in the planning area, so no impacts to wolverines or their habitats are expected.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes and will have no impacts to wolverines or their habitats.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. These actions are general and do not authorize any impacts that would affect wolverines or their habitats.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. The portions of the planning area that contain identified wolverine's habitat are ROW exclusion or avoidance areas, so there would be no impacts to wolverines or their habitat from these actions.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. No identified or proposed corridors occur within wolverine's habitat, so there would be no impacts to wolverines or their habitat.

The management actions for livestock grazing in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. Livestock grazing is permitted in wolverine habitat within the planning area and may have some impacts through altering or restricting movement of wolverines.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. Overall, the management actions will have no impacts to wolverines.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. Within identified habitats in the planning area, no vehicles would be allowed off of designated roads and there would be no impacts to wolverines or their habitat.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. These actions themselves do not authorize any activities that would have an impact on wolverines, so no impacts are expected to wolverines or their habitat within the planning area.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM class. None of these actions authorize any disturbing or disruptive activities and would have no impact on wolverines or their habitat within the planning area.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. None of the management actions authorize any activities that would have an impact on wolverines, so no impacts are expected to wolverines or their habitat within the planning area.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. These actions do not authorize any surface disturbing or disruptive activities, and none of these areas contain identified wolverine habitat, so no impacts to wolverines or their habitat is expected within the planning area.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. These actions do not authorize any surface disturbing or disruptive activities, and none of these ACECs contain identified wolverine habitat, so no impacts to wolverines or their habitat are expected within the planning area.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. These actions do not authorize any surface disturbing or disruptive activities and will have no impacts on wolverines or their habitat within the planning area.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Livestock grazing on private lands
- Timber harvesting on private lands
- Subdivision development
- Recreation
- Coal mine operations
- Transmission lines
- Seismic exploration.

Implementation of the RMP revision would not change any potential effects to the wolverines, or its habitat, that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Any proposed projects that may have an impact on threatened or endangered species would have consultation completed at that time. Other than the actions/programs discussed below, the actions in the RMP revision/EIS have been determined to have "No Effect" on the wolverines.

Within the fire and fuels program, the use of heavy equipment for fire suppression, as well as the removal of vegetative cover during the completion of fuels projects, may have impacts to wolverines by removal of habitat and alteration or restriction of their movement. Any impact would be expected to be minimal, and a "May Affect, Not Likely to Adversely Affect" determination has been made.

Within the biological resources program, actions in the forest and woodlands section have been identified as potentially having an impact. Removal of vegetation during timber sale operations may reduce vegetative hiding cover for wolverines. Although there may be an impact, any project that may be authorized would have consultation completed at that time. Any project completed on BLM-administered lands would have to be designed to minimize impacts to resources, including wolverines and their habitat. Based on these factors, a determination of "May Affect, Not Likely to Adversely Affect" has been made for the forest and woodlands management actions.

Q.4.5 North Platte Species- Piping Plover (*Charadrius melodus*)— Endangered, Whooping Crane (*Grus americana*)— Endangered, Pallid Sturgeon(*Scaphirhynchus albus*)— Endangered, Western Prairie Fringed Orchid (*Platanthera praeclara*)—Endangered

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality (1000-1017) would have no impacts to North Platte Species. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation, and other areas related to soil and geologic resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming that may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the water resources section of this RMP revision/EIS provide guidance for protecting and managing surface and ground water in the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Mineral Resources

Management actions in the RMP Preferred Alternative for locatable minerals identify open areas, and areas that withdrawal from locatable minerals will be pursued. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. Some of the changes in management, specifically the fluid minerals section, would cause water depletions or withdrawals as a result of these actions. Therefore, there may be impacts to the species or associated downstream designated critical habitat.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to provide management guidance for these communities, including minimizing impacts to resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the general wildlife section of this revision are designed to provide protections and generally guide management of wildlife habitat in the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the big game portion of the fish and wildlife section of this revision are designed to provide protections to important winter and parturition habitat for big game. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species

is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the special status plants portion of the biological resources program in this revision are designed to specifically provide protections for special status plants. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the wild horse portion of the biological resources are designed to provide for the management of designated HMAs. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions for livestock grazing management in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. Some of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, there may be impacts to the species or associated downstream designated critical habitats. Specifically, water developments authorized as part of livestock grazing management may have minor associated water withdrawals.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming, may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. None of the Platte River species or their designated critical habitat occur within Wyoming. The primary concern with these species is water depletions which occur in Wyoming may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of these actions would cause water depletions or

withdrawals. Therefore, no effects to the species or associated downstream designated critical habitats are anticipated.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the Platte River species within the state of Wyoming which contain water depletions include but are not limited to the following:

- Water irrigation diversions
- Construction of dams
- Consumptive water use
- Introductions of non-aquatic species
- Regulated water flow.

Implementation of the RMP revision/EIS would not change any potential effects to the Platte River species that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause water withdrawal or depletion from the North Platte River system. No critical habitat for the Platte River species is specifically designated in Wyoming. The Platte River species, the least tern, pallid sturgeon, Western prairie fringed orchid, and whooping crane are not known to occur in Wyoming. In addition, the piping plover is considered a rare or accidental visitor to the state of Wyoming.

Implications for the species and their critical habitats are downstream due to effects from water depletions or withdrawals. When water depletions or withdrawals occur, the BLM and USFWS notify the Wyoming State Engineers Office (SEO) when depletions are slated to occur to ensure an appropriate accounting of all water depletions. Approvals of the SEO are obtained in advance of concluding Section 7 consultation. Except for the actions discussed below, it has been determined that the management actions for this RMP revision/EIS would have "No Effect" on the North Platte Species.

Water withdrawals or depletions may occur as a result of the actions allowing for fluid mineral leasing and subsequent development activities. Given the state of the North Platte species, and the cumulative depletions on other lands, these actions "May Affect, Likely to Adversely Affect" these species. For any projects that cause depletions to the North Platte River system, at the time a project is proposed and analyzed, Section 7 consultation will be completed for that specific project/withdrawals. The Reasonably Foreseeable Development analysis conducted as part of the RMP revision/EIS process, predicts that approximately 6,300 wells could be drilled during the implementation period of the RMP. A number of these wells have previously been consulted on, and most would occur outside the North Platte River system. It is also expected that a fair percentage of the wells would be infill to existing fields. Based on these factors, it can be estimated that approximately greater than 100 wells would be drilled that would cause depletions to the North Platte River system. Individual wells use water at differing rates; however, based on previous depletion amounts it can be anticipated that each well would use approximately 0.65 acre feet of water for

a total of approximately 65 acre feet over the RMP period. As previously stated, any projects with new water depletions would be consulted on at the project level.

Water withdrawals or depletions may occur as a result of the actions associated with livestock grazing management. This would mainly occur with water development projects. Given the state of the North Platte species, and the cumulative depletions on other lands, these actions "May Affect, Likely to Adversely Affect" these species. For any projects that cause depletions to the North Platte River system, at the time a project is proposed and analyzed, Section 7 consultation will be completed for that specific project/withdrawal. At this time, there is very limited related development planned or anticipated that would cause a significant depletion from the North Platte System, so it is expected that depletions to the river system would be minor (greater than one acre feet per year).

Q.4.6 Endangered Colorado Fish Species: Bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), Humpback chub (*Gila cypha*), and Razorback sucker (*Xyrauchen texanus*)—Endangered

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality would have no impacts to Colorado River fish species. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation, and other areas related to soil and geologic resources. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the water resources section of this RMP revision/EIS provide guidance for protecting and managing surface and ground water in the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included

in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Mineral Resources

Management actions in the RMP/EIS Preferred Alternative for locatable minerals identify areas open, and areas that withdrawal from locatable minerals will be pursued. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. Some of the changes in management, specifically the fluid minerals section, would cause water depletions or withdrawals as a result of these actions. Therefore, there may be impacts to the species or associated downstream designated critical habitats.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to provide management guidance for these communities, including minimizing impacts to these and other resources. No critical habitat for the endangered Colorado River fish species is specifically designated in

Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the raptor portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections to nesting raptors. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the special status plants portion of the biological resources program in this RMP revision/EIS are designed to specifically provide protections for special status plants. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a

result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the livestock grazing management in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The

primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. Some of the changes in management would cause water depletions or withdrawals as a result of these actions. Therefore, there may be impacts to the species or associated downstream designated critical habitats. Specifically, water developments authorized as part of livestock grazing management may have minor associated water withdrawals.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. No critical habitat for the endangered Colorado River fish species is specifically

designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats.

None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. No critical habitat for the endangered Colorado River fish species is specifically designated in Wyoming. The primary concern with the Colorado River fish species is water depletions which occur in Wyoming and may cause effects to the species downstream in their respective habitats. None of the changes in management as a result of actions included in the RMP revision/EIS would cause water depletions or withdrawals. Therefore, no effects to the species are anticipated.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the four endangered Colorado River fish species within the state of Wyoming which contain water depletions include but are not limited to the following:

- Water irrigation diversions
- Construction of dams
- Consumptive water use
- Introductions of non-aquatic species
- Regulated water flow.

Implementation of the RMP revision/EIS would not change any potential effects to the Colorado River species that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision. The RMP itself does not authorize any specific actions that would cause water withdrawal or depletion from the Colorado River System. No critical habitat for the four endangered Colorado River fish species is specifically designated in Wyoming. The USFWS, in accordance with the Upper Colorado River Endangered Fish Recovery Program, adopted a *de minimis* policy, which states that water-related activities in the Upper Colorado River Basin that result in less than 0.1 acre-foot per year of depletions in flow have no effect on the Colorado River endangered fish species, and thus do not require consultation for potential effects on those species.

Except for the actions discussed below, it has been determined that the management actions for this RMP revision/EIS would have "No Effect" on the Colorado River fish species.

Water withdrawals or depletions may occur as a result of the actions allowing for fluid mineral leasing and subsequent development activities. Given the state of the endangered Colorado River fishes, and the cumulative depletions on other lands, these actions "May Affect, Likely to Adversely Affect" these species and their critical habitat. For any projects that cause depletions to the Colorado River system, at the time a project is proposed and analyzed, Section 7 consultation will be completed for that specific project/withdrawal. The Reasonably Foreseeable Development analysis conducted as part of the RMP revision/EIS process, predicts that approximately 6,300 wells could be drilled during the implementation period of the RMP. A number of these wells have previously been consulted on, and some occur outside the Colorado River system. It is also expected that a fair percentage of the wells would be infill to existing fields. Based on these factors, it can be estimated that approximately 3,000 wells would be drilled that would cause depletion amounts it can be anticipated that each well would use approximately 0.65 acre feet of water for a total of approximately 1,950 acre feet over the RMP period. As previously stated, any projects with new water depletions would be consulted on at the project level.

Water withdrawals or depletions may occur as a result of the actions associated with livestock grazing management. This would mainly occur with water development projects. Given the state of the endangered Colorado River species, and the cumulative depletions on other lands, these actions "May Affect, Likely to Adversely Affect" these species. For any projects that cause depletions to the Colorado River system, at the time a project is proposed and analyzed, Section 7 consultation will be completed for that specific project/withdrawal. At this time there is very limited related development planned or anticipated that would

cause a significant depletion from the Colorado River system, so it is expected that depletions to the river system would be minor (greater than one acre feet per year).

Q.4.7 Western Yellow-billed Cuckoo (*Coccyzus americanus*)— Threatened

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality would have no impacts to the western yellowbilled cuckoo or its proposed critical habitat. Actions in the air quality program include those related to monitoring and analyses, as well as dust abatement.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation, and other areas related to soil and geologic resources. These actions do not authorize any activities that would impact western yellow-billed cuckoo or their proposed critical habitat.

The management actions for the water resources section of this RMP revision/EIS provide management guidance for the protection and improvement of water resources within the planning area. These actions do not authorize any actions that would impact western yellow-billed cuckoo or their proposed critical habitat.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas, none of which contain habitat, and will have no impacts on western yellow-billed cuckoo or its proposed critical habitat.

Mineral Resources

Management actions in the RMP/EIS Preferred Alternative for locatable minerals identify areas open, and areas that withdrawal from locatable minerals will be pursued. These management actions do not authorize any activities that would have impacts on western yellow-billed cuckoo or its proposed critical habitat.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities; however, some of the associated activities may have impacts to cuckoos or their proposed habitat. Some actions may benefit the species through restrictions of roads, or other activities within or adjacent to their habitat. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. Some actions may benefit the species through restrictions of roads, or other activities within or adjacent to their habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. These actions do not authorize any activities, and it is not expected that any fuels treatments would be

conducted within or adjacent to critical habitat areas. It is not anticipated that these management actions would impact western yellow-billed cuckoo.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. Some actions may impact the species through projects that would alter vegetation within or adjacent to their critical habitat. Because of management guidance that protects resources, including habitats used by cuckoos and other wildlife species in this and other sections, any impacts are expected to be minimal.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources. Some actions may impact the species through projects that would alter vegetation within or adjacent to their critical habitat. Because of management guidance that protects resources, including habitats used by cuckoos and other wildlife species, in this and other sections, any impacts are expected to be minimal.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. Because application of chemicals and other methods to control invasive species and pests under these management actions would be a very specific, defined, site-specific process, no impacts to yellow-billed cuckoo or its proposed critical habitat from these management actions are expected.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. The management actions in this section are general, and more specific management actions will be discussed in the following sections. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitat. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the special status plants portion of the biological resources program in this revision are designed to specifically provide protections for special status plants. Some of the management

guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. None of the actions in this section authorize any activities that would impact the western yellow-billed cuckoo or its proposed critical habitat.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. None of the actions in this section authorize any activities that would impact the western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. None of the actions in this section authorize any activities that would impact the western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes. None of the actions in this section authorize any activities that would impact the western yellow-billed cuckoo or its proposed critical habitat.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. Although unlikely, changes in some of the lands and realty management actions included in the RMP revision/EIS may indirectly protect western yellow-billed cuckoo through land acquisitions, retentions, and reclamations. Road closures would reduce the number of people within western yellow-billed cuckoo habitat and the resulting behavioral disruption impacts on the species and its proposed critical habitat.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats, within or adjacent to western yellow-billed cuckoo habitats. It is not anticipated that these management actions would negatively impact western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. Restrictions of ROW corridors could also benefit the species by reducing ground disturbances in habitat occupied by western yellow-billed cuckoo.

The management actions for livestock grazing management in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. Livestock grazing is permitted in identified western yellow-billed cuckoo habitat within the planning area and may have some

impacts through the altering or removal of vegetation. Although unlikely, changes in some of the livestock management program may indirectly protect the species through the development of a drought contingency plan which could reduce grazing pressure near western yellow-billed cuckoo habitats; the promotion of balanced grazing could also alleviate heavy grazing impacts in wetland areas. It is anticipated that any impacts would not adversely impact the western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. The minimizing of recreation sites and access points along streams and riparian areas and closing areas to camping near streams and riparian areas may benefit the western yellow-billed cuckoo and protect the species and proposed critical habitat. It is not anticipated that there would be negative impacts to the western yellow-billed cuckoo or proposed critical habitat from these actions.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. The minimizing of impacts and restricting use of OHVs through identifying open and closed areas could benefit yellow-billed cuckoo and its habitats by restricting travel of OHVs in those areas. It is not anticipated that there would be negative impacts to the western yellow-billed cuckoo or its proposed critical habitat from these actions.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. Although unlikely, at points where the trails cross habitat for the yellow- billed cuckoo, restrictions identified in these actions may indirectly benefit the cuckoo by protecting its habitat. No negative impacts from these actions are anticipated on the western yellow-billed cuckoo or its proposed critical habitat.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class. There is no identified habitat for the western yellow-billed cuckoo in the designated wilderness study areas in the planning area. Therefore, no impacts to the western yellow-billed cuckoo or its proposed critical habitat are anticipated from these actions.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. There is no identified habitat for the western yellow-billed cuckoo in the designated wild and scenic areas in the planning area. Therefore, no impacts to the western yellow-billed cuckoo or its proposed critical habitat are anticipated from these actions.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. There is no identified habitat for the western yellow-billed cuckoo in the designated management areas in the planning area. Therefore, no impacts to the western yellow-billed cuckoo or its proposed critical habitat are anticipated from these actions.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. There is no identified habitat for the western yellow-billed cuckoo in the designated ACECs in the planning area. Therefore, no impacts to the western yellow-billed cuckoo or its proposed critical habitat are anticipated from these actions.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. These actions do not authorize any surface disturbing or disruptive activities and will have no impacts on the western yellow-billed cuckoo or their proposed critical habitat within the planning area.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Water depletions from irrigation diversions and dams
- Livestock grazing on private lands
- Subdivision development along rivers
- Recreation along rivers and river corridors (including camping, rafting, and hunting)
- Transmission lines.

Implementation of the RMP revision/EIS would not change any potential effects to western yellow-billed cuckoo or its proposed critical habitat that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Any proposed projects that may have an impact on threatened or endangered species would have consultation completed at that time. Other than the actions/programs discussed below, the actions in the RMP revision/EIS have been determined to have "No Effect" on the western yellow- billed cuckoo and its proposed critical habitat.

Management actions in the following sections provided management guidance that may inadvertently provide protections to western-yellow-billed cuckoo and its proposed critical habitat through restricting development, roads, timing restrictions on industry and public access, or removal of vegetation within or adjacent to the cuckoo's identified habitat. These sections include leasable minerals, salable minerals, forest and fuels, grass and shrublands, general wildlife, big game, raptors, fish, special status species, lands and realty, ROW corridors, comprehensive travel and transportation management, livestock grazing, recreation, and off-highway vehicles. No negative impacts from these actions are expected, so it has been determined that the mineral resources, biological resources, land resources and special designation programs are "Likely to Affect, Not Likely to Adversely Affect" the western yellow-billed cuckoo and its proposed critical habitat.

Q.4.8 Monarch Butterfly (*Danaus plexippus*)

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement, and would have no impacts to the Monarch butterfly or its habitat.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation and other areas related to soil and geologic resources. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions for the water resources section of this RMP revision/EIS provide management guidance for the protection and improvement of water resources within the planning area. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Mineral Resources

Management actions in the RMP/EIS Preferred Alternative for locatable minerals identify open areas, and areas that withdrawal from locatable minerals will be pursued. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. These actions do not authorize any surface disturbing or disruptive activities. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. Application of chemicals and other methods to control invasive species and pests under these management actions would be a very specific, defined, site-specific process. Use of pesticides to control invasive weeds may inadvertently impact milkweed, which could cause impacts to the Monarch butterfly and its habitat.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. The management actions in this section are general, and more specific management actions will be discussed in the following sections. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the fish portion of the fish and wildlife section of this revision are designed specifically to provide protections for fish species and their habitats. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the special status plants portion of the biological resources program in this RMP revision/EIS are designed to specifically provide protections for special status plants. It is not anticipated that these management actions would the Monarch butterfly or its habitats.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions for livestock grazing management in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing protections for other resource values. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. No impacts to Monarch butterfly or its habitat are anticipated from these actions.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. No impacts to the Monarch butterfly and its habitat are anticipated.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. No impacts to the Monarch butterfly or its habitat are anticipated from these actions.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Water depletions from irrigation diversions and dams
- Livestock grazing on private lands
- Subdivision development along rivers
- Recreation along rivers and river corridors (including camping, rafting, and hunting)
- Transmission lines.

Implementation of the RMP revision/EIS would not change any potential effects to the Fremont County rockcress or its habitat that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Because the Monarch butterfly is a candidate species, no determinations of effects have been made. However, no negative impacts to the Monarch butterfly are anticipated from the actions in this RMP revision/EIS.

Q.4.9 Ute Ladies'-Tresses (Spiranthes diluvialis)—Threatened

Effects of Selected Alternative

Physical Resources

The physical resources program includes management actions for air quality, soil, geologic, water, and lands with wilderness characteristics.

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement and would have no impacts to the Ute ladies'-tresses or its habitat.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation and other areas related to soil and geologic resources. Actions that are designed to minimized erosion and sedimentation would reduce impacts to

streams, riparian areas and wetlands. These would have positive impacts to Ute ladies'-tresses by protecting the species and their habitat. No negative impacts to Ute ladies'-tresses from these actions are anticipated.

The management actions for the water resources section of this RMP revision/EIS provide management guidance for the protection and improvement of water resources within the planning area. Actions that are designed to protect water resources would also be expected to provide protections for the Ute ladies'- tresses through actions that would minimize erosion and sedimentation and protection of streams, riparian areas, and wetlands. It is anticipated that these actions would have positive impacts to Ute ladies'-tresses by protecting the species and their habitat. No negative impacts to Ute ladies'-tresses from these actions are anticipated.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas, none of which contain habitat, and because actions in other sections of this revision, such as special status plant species, provide restrictions on development and disturbance that would provide protections to the plants, no impacts to Ute ladies'-tresses or its habitat are anticipated from these actions.

Mineral Resources

Management actions in the RMP Preferred Alternative for locatable minerals identify open areas and areas where withdrawal from locatable minerals will be pursued. No negative impacts to Ute ladies'-tresses from these actions are anticipated, because actions in other sections of this revision, such as special status plant species, provide restrictions on development and disturbance that would provide protections to the plants.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. Actions that allow for leasing and subsequent surface disturbance during project development, may have an impact on Ute ladies'-tresses; however, because actions in this and in other sections of this revision, such as special status plant species, provide restrictions on development and disturbance that would provide protections to the plants, impacts to Ute ladies'-tresses or its habitat are expected to be minimal.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area. Actions that allow for leasing and subsequent surface disturbance during project development, may have an impact on the Ute ladies'- tresses; however, because actions in this and in other sections of this revision, such as special status plant species, provide restrictions on development and disturbance that would provide protections to the plants, impacts to Ute ladies'-tresses or its habitats are expected to be minimal.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. These actions do not authorize any activities. Actions that allow fuels treatment project to be conducted may have an impact on the Ute ladies'-tresses; however, because actions in this and in other sections of this revision, such as special status plant species, provide restrictions on development and disturbance that would provide protections to the plants, impacts to Ute ladies'-tresses or its habitat are expected to be minimal.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. Actions that allow vegetation removal or enhancement may have an impact on

the Ute ladies'-tresses; however, because actions in this and in other sections of this revision, such as special status plant species, provide restrictions on disturbance that would provide protections to the plants, impacts to Ute ladies'-tresses or its habitat are expected to be minimal.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources. Actions that allow vegetation removal or enhancement may have an impact on the Ute ladies'-tresses; however, because actions in this and in other sections of this revision, such as special status plant species, provide restrictions on disturbance that would provide protections to the plants, impacts to Ute ladies'-tresses or its habitat are expected to be minimal.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. Because application of chemicals and other methods to control invasive species and pests under these management actions would be a very specific, defined, site-specific process; no impacts to Ute ladies'-tresses or their habitat from the management actions are expected.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. The management actions in this section are general, and more specific management actions will be discussed in the following sections. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitat.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitat.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitat.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats. Some of the management guidance may benefit the species through actions that provide for protection of other species or their habitats. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitat.

The management actions in the special status plants portion of the biological resources program in this revision are designed to specifically provide protections for special status plants. These actions are specifically designed to provide management guidance for the protection of plants like the Ute ladies'-tresses. Some of the other management guidance may benefit the species through actions that provide for protection of other species or their habitats. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitats.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. Some of the management guidance may benefit the species through actions that provide for protection of other species
or their habitats. It is not anticipated that these management actions would negatively impact Ute ladies'tresses or their habitat.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. Some of the management guidance may benefit the species through actions that reduce or redistribute wild horse herds. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitat.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. None of the actions in this section authorize any activities that would impact the Ute ladies'-tresses or their habitat.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. None of the actions in this section authorize any activities that would impact the Ute ladies'-tresses or their habitat.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes. None of the actions in this section authorize any activities that would impact the Ute ladies'-tresses or their habitat.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. Although unlikely, changes in some of the lands and realty management actions included in the RMP revision/EIS may indirectly protect Ute ladies'-tresses through land acquisitions, retentions, and reclamations. It is not anticipated that these management actions would negatively impact Ute ladies'-tresses or their habitat.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. Although there may be some impacts from management guidance that opens areas to renewable energy development, and subsequent development activities, actions that provide restrictions on the types and location of disturbance, both in this section as well as in other sections, such as the special status plant species section of this RMP revision/EIS, would be expected to minimize any negative impacts to the Ute ladies'-tresses and their habitat.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. Although there may be some impacts from management guidance that opens areas to ROW development, and subsequent development activities, actions that provide restrictions on the types and location of disturbance, both in this section as well as in other sections such as the special status plant species section of this RMP revision/EIS, would be expected to minimize any negative impacts to the Ute ladies'-tresses and their habitat.

The management actions for livestock grazing management in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area. Livestock grazing is permitted in Ute ladies'-tresses habitat within the planning area and may have some impacts through the altering or removal of vegetation. Although unlikely, changes in the livestock management program may indirectly protect the species through the development of a drought contingency plan which could reduce

grazing pressure near Ute ladies'-tresses habitats; the promotion of balanced grazing could also alleviate heavy grazing impact in wetland and riparian areas. It is anticipated that any impacts would not adversely impact the Ute ladies'-tresses or its habitat.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. Minimizing recreation sites and access points along streams and riparian areas and closing areas near streams and riparian areas to camping may benefit the Ute ladies'-tresses and protect the species and its habitat. It is not anticipated that there would be negative impacts to the Ute ladies'- tresses or their habitat from these actions.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. Although there may be some impacts from management guidance that opens areas to OHV use, actions that provide restrictions on the types and location of disturbance, both in this section as well as in other sections such as the special status plant species section of this RMP revision/EIS, would be expected to minimize any negative impacts to the Ute ladies'-tresses and their habitat.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. The minimizing of disturbance within the trail corridors may benefit the Ute ladies'-tresses and protect the species and its habitat. It is not anticipated that there would be negative impacts to the Ute ladies'-tresses or their habitat from these actions.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class. These actions provide protections and restrictions that would be put in place if the wilderness study designation was removed. It is not anticipated that there would be negative impacts to the Ute ladies'-tresses or their habitat from these actions.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. The minimizing/prohibition of disturbance along streams and riparian areas within these designations may benefit the Ute ladies'-tresses and protect it and its habitat. It is not anticipated that there would be negative impacts to the Ute ladies'-tresses or their habitat from these actions.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. The minimizing, restriction and prohibition of disturbance and other activities in these management areas may benefit the Ute ladies'-tresses and protect the species and its habitat. It is anticipated that there would be minimal negative impacts to the Ute ladies'-tresses or their habitat from these actions.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. The minimizing, restriction, and prohibition of disturbance within the ACECs may benefit the Ute ladies'-tresses and protect the species and its habitat. It is not anticipated that there would be negative impacts to the Ute ladies'-tresses or their habitat from these actions.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. These actions do not authorize any surface disturbing or disruptive activities and will have no impacts on the Ute ladies'-tresses or its habitat within the planning area.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Water depletions from irrigation diversions and dams
- Livestock grazing on private lands
- Sand and gravel operations along major river corridors
- Existing and proposed wind farms
- Hard rock mining (including coal, trona, and phosphates)
- Bentonite mining
- Subdivision development along rivers
- Recreation along rivers and river corridors (including camping, rafting, hunting, and golf course development)
- Coal mine operations
- Transmission lines
- Seismic exploration
- Trona (soda ash) mining
- Municipal dump expansions.

Implementation of the RMP revision would not change any potential effects to the Ute ladies'-tresses that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Preferred Alternative for the Rock Springs Field Office RMP Revision/EIS. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Any proposed projects that may have an impact on threatened or endangered species would have consultation completed at that time. Other than the actions/programs discussed below, the actions in the RMP revision/EIS have been determined to have "No Effect" on the Ute ladies'-tresses or its habitat.

Management actions in the following sections provided management guidance that may inadvertently provide protections to Ute ladies'-tresses or its habitat through restricting development, roads, or removal of vegetation within or adjacent to the Ute ladies'-tresses identified habitat. These sections include soil and geologic, water, locatable minerals, leasable minerals, salable minerals, fire and fuels, forest and woodlands, grass and shrublands, general wildlife, big game, raptors, fish, special status species, lands and realty, ROW corridors, comprehensive travel and transportation management, livestock grazing, recreation, and OHV, congressionally designated trails, wilderness study areas, wild and scenic rivers, management areas, and ACECs. Some negative impacts within the locatable minerals, leasable minerals, lands and realty, renewable energy and livestock grazing; however, actions designed specifically to guide, restrict, minimize and mitigate for activities that would cause surface disturbance would minimize any impacts to the Ute ladies'-tresses. Based on the restrictions and protections provided in the management actions in this document, it has been determined that the physical resources, mineral resources, biological resources, land resources, and special designation programs are "Likely to Affect, Not Likely to Adversely Affect" the Ute ladies'-tresses or its habitat.

Q.4.10 Whitebark Pine

Effects of Selected Alternative

Physical Resources

Management actions in the Proposed RMP for air quality include those related to monitoring and analyses, as well as dust abatement and would have no impacts to the whitebark pine or its habitat.

The management actions for soil and geologic resources in this RMP revision/EIS provide management guidance for protecting and monitoring erosion, sedimentation and other areas related to soil and geologic resources. Actions that are designed to minimized erosion and sedimentation would reduce impacts to streams, riparian areas and wetlands. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions for the water resources section of this RMP revision/EIS provide management guidance for the protection and improvement of water resources within the planning area. No impacts to whitebark pine or its habitat from these actions are anticipated.

Management actions in the RMP/EIS Preferred Alternative for lands with wilderness characteristics deal with acquisition and/or general management of the identified areas with wilderness characteristics. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Mineral Resources

Management actions in the RMP Preferred Alternative for locatable minerals identify open areas and areas where withdrawal from locatable minerals will be pursued. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions for leasable minerals in this RMP revision/EIS provide guidance for managing leasing and project development within the planning area. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions for salable minerals in this RMP revision/EIS provide guidance for managing permitting and project development within the planning area No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Fire and Fuels Management

The management actions in the fire and fuels program of this RMP revision/EIS provide management guidance for wildfire suppression and fuels treatment activities, while protecting other resource values. These actions do not authorize any activities No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Biological Resources

Changes to management of forest and woodlands in this RMP revision/EIS are designed to minimize impacts to other resources. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Changes to management of grassland and shrubland communities in this RMP revision/EIS are designed to minimize impacts to resources. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The invasive species and pest management actions in this RMP revision/EIS are designed provide for control of these species while minimizing impacts to other resources. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the general wildlife section of this RMP revision/EIS are designed to provide protections and generally guide management of wildlife habitat in the planning area. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the big game portion of the fish and wildlife section of this RMP revision/EIS are designed to provide protections to important winter and parturition habitat for big game. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the raptor portion of the fish and wildlife section of this revision are designed specifically to provide protections to nesting raptors. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the fish portion of the fish and wildlife section of this RMP revision/EIS are designed specifically to provide protections for fish species and their habitats. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the special status plants portion of the biological resources program in this revision are designed to specifically provide protections for special status plants. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the special status species, wildlife and fisheries portion of this RMP revision/EIS are designed to provide protections for special status wildlife and fish species. No known

populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the wild horse portion of biological resources are designed to provide for the management of designated HMAs. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Heritage and Visual Resources

The management actions in the cultural section of this RMP revision/EIS are designed to provide protection for specific sites and specific resources. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the paleontological section of this RMP revision/EIS are designed to provide for protection and management of paleontological resources. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the visual section of this RMP revision/EIS are designed to meet the specific requirements of the VRM Classes. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Land Resources

The management actions in the lands and realty section of this RMP revision/EIS provide general management guidance for related actions while minimizing impacts to other resources. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the renewable energy section of this RMP revision/EIS provide guidance for the approval and management of renewable energy development within the planning area. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the ROW corridors section of this RMP revision/EIS provide management guidance for currently identified corridors, closure of existing corridors, and designation of new corridors. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions for livestock grazing management in this RMP revision/EIS provide guidance for authorization and management of livestock grazing on lands within the planning area No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the recreation section of this RMP revision/EIS provide guidance for management of recreation activities within the planning area, while providing for protections to other resource values. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the OHV section of this RMP revision/EIS provide guidance for managing OHV use within the planning area. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Special Designations

The management actions in the congressionally designated trails section of this RMP revision/EIS are meant to provide guidance for both the management of the trail corridors and any activities that are proposed within those corridors. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the wilderness study area section of this RMP revision/EIS provide for future designations of these areas if they are not designated as wilderness, as well as designation of their current VRM Class. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the wild and scenic rivers section of this RMP revision/EIS provide guidance for the designation and management of those areas that meet the suitability factors. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the management areas section of this RMP revision/EIS provide guidance for managing both the areas and any activities that might occur in them. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

The management actions in the ACEC section of this RMP revision/EIS provide management guidance for designating and retaining the ACEC status and provide management guidance for activities within those areas. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Socioeconomic

The management actions in the socioeconomic resources program provide management guidance for protection of human health and the environment from hazardous resources and wastes, and for the consideration of socioeconomic impacts during project planning. No known populations of whitebark pine exist within the planning area and no impacts to whitebark pine or its habitat from these actions are anticipated.

Cumulative Effects

Cumulative impacts, according to the ESA, Section 7 Consultation Handbook definition (USFWS 1998a) include the incremental impacts of future state or private activities (i.e., excluding federal activities) that are reasonably certain to occur within the action area of the federal action subject to consultation.

Existing and proposed activities on non-federal lands in the planning area that have the potential to cumulatively affect the species include but are not limited to the following:

- Non-federal oil and gas and related energy development
- Water depletions from irrigation diversions and dams
- Livestock grazing on private lands
- Sand and gravel operations along major river corridors
- Existing and proposed wind farms

- Hard rock mining (including coal, trona, and phosphates)
- Bentonite mining
- Subdivision development along rivers
- Recreation along rivers and river corridors (including camping, rafting, hunting, and golf course development)
- Coal mine operations
- Transmission lines
- Seismic exploration
- Trona (soda ash) mining
- Municipal dump expansions.

Implementation of the RMP revision would not change any potential effects to the whitebark pine that may result from current or projected future non-federal actions.

Effects Determination

The effects determination addresses the Rock Springs Field Office Proposed RMP. The RMP itself does not authorize any specific actions that would cause surface disturbance or disruption. Any proposed projects that may have an impact on threatened or endangered species would have consultation completed at that time. The actions in the RMP revision/EIS have been determined to have "No Effect" on the whitebark or its habitat.

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT High Desert District - Rock Springs Field Office 280 Highway 191 North Rock Springs, Wyoming 82901-3447 www.blm.gov/wy



In Reply Refer To: (WYD04)

JUN 1 0 2024

Memorandum

To: Field Supervisor, U.S. Fish and Wildlife Service, Wyoming Field Office, Cheyenne, Wyoming

From: Kimberlee D. Foster, Field Manager, Bureau of Land Management, Rock Springs Field Office, Rock Springs, Wyoming Hymello D. Otto

Subject: Biological Assessment for the Rock Springs Final EIS and Proposed RMP

This memo contains the Biological Assessment addressing potential impacts from actions identified in the Rock Spring Final EIS and Proposed RMP on federally listed species and designated critical habitats. With this submission, we are requesting initiation of Formal Consultation under Section 7(a) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (ESA).

The Final EIS and Proposed RMP are scheduled to be released sometime in July of this year, with the Record of Decision (ROD) planned for November 2024. In an effort to provide you adequate time for consultation response prior to issuance of the ROD, we are sending the Biological Assessment at this time.

If you have any questions regarding this consultation, please contact Mark Snyder, Assistant Field Manager-Resources, at the address shown above, or telephone 307- 352-0246.



United States Department of the Interior

FISH AND WILDLIFE SERVICE 334 Parsley Blvd. Cheyenne, Wyoming 82007



In Reply Refer to: FWS/R6/2023-0053329

Memorandum

To:	Field Manager, Bureau of Land Management, Rock Springs Field Office,
	Sock Springs, Wyoming JENNIFER HILL Digitally signed by JENNIFER HILL Digitally signed by JENNIFER HILL Digitally signed by JENNIFER HILL
From:	<i>for</i> Field Supervisor, U.S. Fish and Wildlife Service, Wyoming Field Office, Cheyenne, Wyoming
Subject:	Programmatic Biological Opinion for the Bureau of Land Management's Rock Springs Field Office Revised Resource Management Plan in Lincoln, Sweetwater, Uinta, Sublette, and Fremont Counties, Wyoming

This correspondence is in response to the Bureau of Land Management's (Bureau) request for formal consultation on the impacts from the Rock Springs Field Office revised Resource Management Plan (RMP) to federally listed species in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Your June 10, 2024, request was received June 18, 2024. On November 14, 2024, the U.S. Fish and Wildlife Service (Service) notified the Bureau that all information necessary to complete this consultation had been received or was otherwise accessible.

This correspondence addresses potential effects to the Canada lynx (*Lynx canadensis*), grizzly bear (*Ursus arctos horribilis*), North American wolverine (*Gulo gulo luscus*), Platte River¹ and Colorado River² downstream listed species and their designated critical habitats, western distinct population segment (DPS) of the yellow-billed cuckoo (*Coccyzus americanus*), Ute ladies'-tresses (*Spiranthes diluvialis*), and whitebark pine (*Pinus albicaulis*) from the planned programs of the Rock Springs revised RMP which include: (1) Physical Resources, (2) Mineral Resources, (3) Fire and Fuels, (4) Biological, (5) Cultural, (6) Land, (7) Livestock Grazing, (8) Recreation, (9) Special Designations, and (10) Socioeconomics.

The Rock Springs RMP is used by the Bureau to guide and control future actions and set standards, upon which future decisions on site-specific activities are based. An RMP only establishes general management policy. An RMP is not used to make decisions that commit

¹ Pallid sturgeon (*Scaphirhynchus albus*), Piping plover (*Charadrius melodus*), Whooping crane (*Grus americana*), and the Western prairie fringed orchid (*Platanthera praeclara*).

² Bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), Humpback chub (*Gila cypha*), and Razorback sucker (*Xyrauchen texanus*).

resources. An RMP identifies desired outcomes, also known as "desired future conditions." These outcomes are expressed in RMPs as standards, objectives, and allowable uses and actions needed to achieve desired outcomes, often referred to as RMP decisions or resource allocations. It is these decisions or resource allocations of the Rock Springs RMP that the effects determinations in this consultation are based. As such, the Bureau is still obligated to conduct section 7 consultation at the project-specific level for all Bureau-authorized activities that "may affect" any ESA-listed species.

This correspondence has two parts: (1) an informal consultation for 'may affect, not likely to adversely affect' determinations for impacts to listed species and designated critical habitats is contained within this memorandum, and (2) an attached programmatic biological opinion for potential adverse effects from the Mineral Resources and Livestock Grazing programs described in the revised RMP. The consultation is based on information provided in the July 2024 biological assessment (BA; Bureau 2024a), final environmental impact statement (Bureau 2024b), multiple conversations between July 9 and November 14 that occurred between Alex Schubert (Service) and Mark Snyder (Bureau), field investigations, peerreviewed scientific literature, and the best available scientific data. Literature cited in the attached programmatic biological opinion is not a complete bibliography of all literature available on the species of concern, the activities that make up the programs in the revised RMP or their effects, or on other subjects considered in this opinion. A complete administrative record of all documents and correspondence concerning this consultation is on file in the Wyoming Ecological Services Field office.

Consultation History

The Service and the Bureau began consultation on the impacts of Bureau activities to the Canada lynx, grizzly bear, North American wolverine, Platte River and Colorado River downstream listed species and their designated critical habitats, western DPS of the yellow-billed cuckoo, Ute ladies'-tresses, and whitebark pine within the Rock Springs Field Office boundary on July 9, 2024. The Bureau obtained an updated list of federally threatened and endangered species for the Rock Springs Field Office using the Service's on-line Information for Planning and Consultation (IPaC) tool on June 4, 2024.

From July 9, 2024, through November 14, 2024, Service personnel corresponded on numerous occasions with Bureau personnel to assist in the completion of the Rock Springs BA. The Service received all information necessary to complete formal consultation on this proposed action on November 14, 2024.

Informal Consultation

In the Rock Springs revised RMP BA, the Bureau made a 'no effect' or a 'may affect, not likely to adversely affect' determination for the impacts from all but two of the planned programs on listed species in the Rock Springs Field Office boundary. The programs and determinations are displayed in Table 1.

Table 1. Listed Species for which the Bureau made a 'no effect' or a 'may affect, not likely to adversely affect' determination.

Species/Critical Habitat Program	Canada Lynx	Grizzly Bear	North American Wolverine	Colorado River Downstream Species	Platte River Downstream Species	Western DPS of the Yellow-billed cuckoo	Ute ladies-tresses	Whitebark Pine
Physical Resources	NE	NE	NE	NE	NE	NE	NLAA	NE
Mineral Resources	NE	NE	NE			NLAA	NLAA	NE
Fire and Fuels	NLAA	NLAA	NLAA	NE	NE	NE	NLAA	NE
Biological	NE	NE	NE	NE	NE	NLAA	NLAA	NE
Cultural	NE	NE	NE	NE	NE	NE	NLAA	NE
Land	NLAA	NE	NE	NE	NE	NLAA	NLAA	NE
Livestock Grazing	NLAA	NLAA	NLAA			NLAA	NLAA	NE
Recreation	NLAA	NE	NE	NE	NE	NLAA	NLAA	NE
Special Designations	NE	NE	NE	NE	NE	NLAA	NLAA	NE
Socioeconomics	NE	NE	NE	NE	NE	NE	NE	NE

Canada lynx: The BA addressed activities that 'may affect but are not likely to adversely affect' the Canada lynx. The Service concurs with your determination that activities described in the proposed revised RMP 'may affect but are not likely adversely affect' the Canada lynx. The Service's concurrence is based on the fact that the Bureau has analyzed suitable lynx habitat statewide and found that there are no areas of likely Canada lynx habitation nor does any designated critical habitat overlap lands administered by the Bureau within the Rock Springs Field Office boundary. The Service recommends that the Rock Springs Bureau follow all best management practices and conservation measures identified in the Bureau's Statewide Programmatic Canada Lynx Biological Assessment (Bureau 2005a), where applicable.

Ute ladies'-tresses orchid: The BA addressed activities that 'may affect but are not likely to adversely affect' the Ute ladies'-tresses orchid. The Service concurs with your determination that activities described in the proposed revised RMP 'may affect but are not likely adversely affect' these plants. The Service's concurrence is based on the fact that after many years of surveys, no populations of Ute ladies'-tresses have been located on lands managed by the Bureau's Rock Springs Field Office and that future projects proposed within suitable habitat will have surveys conducted (or assume species presence) prior to Bureau authorization with project-specific section 7 consultation, if needed. The Service recommends that the Rock Springs Bureau follow all best management practices and conservation measures identified in the Bureau's Statewide Programmatic Ute ladies'-tresses Biological Assessment (Bureau 2005b), where applicable.

Grizzly Bear: The Service concurs with your determination that activity programs described in the proposed Rock Springs revised RMP 'may affect but are not likely adversely affect' the grizzly bear because; (1) the activity programs will not occur in grizzly bear habitat, (2) most activity programs, by their very nature, would not be likely to adversely affect the grizzly bear, (3) lands within the Rock Springs revised RMP boundary are not likely to contain occupied grizzly bear habitat as this area lies outside of the Primary Conservation Area for the Greater Yellowstone Ecosystem (GYE) grizzly bear population, and (4) no grizzly bears have been recorded within the Rock Springs Field Office boundary in at least the last 50 years. The Service

recommends that the Rocks Springs Bureau follow all best management practices and conservation measures identified in the Bureau's Statewide Programmatic Grizzly Bear Biological Assessment (Bureau 2005c), where applicable.

The following impacts may influence grizzly bears in some portions of their range; however, these effects are considered unlikely to occur as a result of discretionary actions of the Bureau as authorized under the Rock Springs revised RMP in Wyoming. These impacts are: (1) a reduction in the potential future food resources for grizzly bears, (2) displacement from high quality habitats preventing grizzly bear dispersal and or causing social disruption, and (3) fragmentation or destruction of suitable grizzly bear habitat.

Additionally, the following impacts are considered discountable as they are unlikely to occur as a result of discretionary actions of the Bureau as authorized under the Bureau's Rock Springs revised RMP in Wyoming. These effects are: (1) mortality or harm from vehicle collisions or from illegal, accidental, or defensive taking of grizzly bears by grazing permittees/employees and or other members of the public, (2) harassment and or disturbance of denning, dispersing, and or foraging areas from human activity, noise, and or other hazards (such as chemical toxins), and (3) relocation or removal of grizzly bears by authorized officials.

North American wolverine: The Service concurs with your determination that activity programs described in the Rock Springs revised RMP 'may affect but are not likely adversely affect' or may have 'no effect' on the North American wolverine because (1) the activity would not occur in North American wolverine habitat, (2) the activity, by its very nature, would have no effect or would not be likely to adversely affect the North American wolverine, (3) lands within the Rock Springs revised RMP boundary are not likely to be occupied by the North American wolverine, and, (4) no North American wolverines have been recorded within the Rock Springs revised RMP boundary in at least the last 50 years.

Platte River and Colorado River downstream listed species: The BA also addressed several program activities that are expected to have 'no effect' to downstream listed species of the Platte River and Colorado River systems. When the Bureau makes a "no effect" determination, concurrence from the Service is not required, although we appreciate being kept informed of the Bureau's determination.

Western DPS of yellow-billed cuckoo: The Service concurs with your determination that certain activities described in the proposed Rock Springs revised RMP programs 'may affect, but would not likely adversely affect' the western DPS of yellow-billed cuckoo because (1) most activities will not occur within suitable habitat for the western DPS of yellow-billed cuckoo because it is only a small portion of the Rock Springs area, (2) individuals from the western DPS of yellow-billed cuckoo are very rare in Wyoming, (3) riparian zones are areas of avoidance by the Bureau for disruptive activities, and (4) management actions under the minerals, biological, land, livestock grazing, recreation, and special designations programs may provide beneficial effects to the western DPS of yellow-billed cuckoo from added habitat protective measures.

Whitebark pine: The Bureau has determined that program activities described in the proposed Rock Springs revised RMP will have 'no effect' to the whitebark pine. When the Bureau makes a "no effect" determination, concurrence from the Service is not required, although we appreciate being kept informed of the Bureau's determination.

We appreciate your efforts to conserve endangered, threatened, proposed and candidate species. If you have any questions regarding this letter or your responsibilities under the ESA or other authorities, please contact our office at WyomingES@fws.gov or by phone at (307) 772-2374.

- Attachment: Programmatic Biological Opinion for the Bureau of Land Management's Rock Springs Field Office Revised Resource Management Plan in Lincoln, Sweetwater, Uinta, Sublette, and Fremont Counties, Wyoming
- cc: Bureau of Land Management Wyoming State Office, Wildlife Biologist, Cheyenne Wyoming (C. Carter) (cjcarter@blm.gov)
 Wyoming Come and Eich Department. Statewide Hebitat Protection Program. Chever
 - Wyoming Game and Fish Department, Statewide Habitat Protection Program, Cheyenne, Wyoming (wgfd.hpp@wyo.gov)

PROGRAMMATIC BIOLOGICAL OPINION

for

the Bureau of Land Management's Rock Springs Field Office Revised Resource Management Plan in Lincoln, Sweetwater, Uinta, Sublette, and Fremont Counties, Wyoming

U.S. Fish and Wildlife Service Reference Number 2023-0053329

Prepared by: U.S. Fish and Wildlife Service Wyoming Ecological Services Field Office November 21, 2024

Issued by:

for Tyler A. Abbott, Field Supervisor

PROGRAMMATIC BIOLOGICAL OPINION

Introduction

This programmatic biological opinion (pBO) is in response to the Bureau of Land Management's (Bureau's) request for formal consultation on the impacts from the Rock Springs Field Office revised Resource Management Plan (RMP) to federally listed species in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C 1531 *et seq.*). Your June 10, 2024, request was received June 18, 2024. On November 14, 2024, the U.S. Fish and Wildlife Service (Service) notified the Bureau that all information necessary to complete this consultation had been received or was otherwise accessible.

The programmatic formal consultation on the potential adverse effects from the proposed revised RMP, specifically the Mineral Resources and Livestock Grazing programs, on the Platte River¹ and Colorado River² listed species and their designated critical habitats is based primarily on our review of your July 2024 biological assessment (BA; Bureau 2024a), final environmental impact statement (Bureau 2024b), conversations from July 9, 2024, through November 14, 2024, between Alex Schubert (Service) and Mark Snyder (Bureau), field investigations, peer-reviewed scientific literature, and the best available scientific data. Literature cited in the attached programmatic biological opinion is not a complete bibliography of all literature available on the species of concern, the activities that make up the programs in the revised RMP or their effects, or on other subjects considered in this opinion. A complete administrative record of all documents and correspondence concerning this consultation is on file in the Wyoming Ecological Services Field office.

From July 9, 2024, through November 14, 2024, Service personnel corresponded on multiple occasions with Bureau personnel to assist in the completion of the BA. The Service received all information necessary to complete formal consultation on this proposed action on November 14, 2024.

Description of the Proposed Action

Regulations implementing the ESA (50 CFR § 402.02) define "action" as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies of the United States or upon the high seas." The proposed action examined in this pBO is the management according to the revised Rock Springs RMP (Bureau 2024). These activities are summarized in the Appendix. The Rock Springs RMP is used by the Bureau to guide and control future actions and set standards upon which future decisions on site-specific activities within the Rock Springs Field Office boundary are based. The revised RMP establishes general management policy on a broad scale and is not used to make decisions that commit resources on a small scale such as on specific parcels of land. The Rock Springs revised RMP also identifies desired outcomes, also known as "desired future conditions". These outcomes are expressed in the revised RMP as goals, standards, objectives, and allowable uses and actions needed to

¹Pallid sturgeon (*Scaphirhynchus albus*), Piping plover (*Charadrius melodus*), Whooping crane (*Grus americana*), and the Western prairie fringed orchid (*Platanthera praeclara*).

²Bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), Humpback chub (*Gila cypha*), and Razorback sucker (*Xyrauchen texanus*).

achieve those desired outcomes. These are often referred to as RMP decisions or resource allocations. It is upon these RMP decisions or resource allocations that the effects determination in this pBO are based.

The Rock Springs revised RMP provides guidance and direction for management of Bureauadministered public land surface and federal mineral estate. The revised RMP is a set of comprehensive long-range decisions concerning the use and management of resources administered by the Bureau. It provides an overview of goals, objectives, and needs associated with public lands management, and resolves multiple-use conflicts or issues. The objective of the revised RMP is to provide specific management direction to prevent or address potential conflicts among energy resources development, recreational activities, livestock management, important wildlife habitat, and other important land and resource uses in the Bureau's Rock Springs Field Office boundary, as well as to determine the appropriate levels and timing of these activities. This consultation only addresses the potential effects of the Rock Springs revised RMP as of the date of this pBO.

The Rock Springs revised RMP incorporates current laws and regulations and public land resource management initiatives to guide long-range land management decisions for public lands and resources in Lincoln, Sweetwater, Uinta, Sublette, and Fremont counties in southwestern Wyoming. Over this area, the Bureau administers approximately 3.6 million acres of surface land and mineral estate. The Rock Springs revised RMP does not include land management decisions where land surfaces and minerals are both privately-owned, or owned by the State of Wyoming, or local governments, or those lands that are managed by other federal agencies.

A description of Mineral Resources and Livestock Grazing program activities in the Rock Springs revised RMP that 'may affect and are likely to adversely affect' the Platte River and or Colorado River downstream listed species and their designated critical habitats is contained in the Rock Springs BA (Bureau 2024) and is described below.

Minerals Resources Program

The objective of management actions for the Mineral Resources program is to make public lands and federal mineral estate available for orderly and efficient development of mineral resources. The Bureau's mineral program is divided into salable minerals, leasable minerals, and locatable minerals.

The lands administered by the Bureau in Wyoming contain some of the most prolific oil, gas, coal and trona producing areas in the Rocky Mountain region. Mineral development is subject to leasing, location, or sale based on the Federal mineral law (such as the Mineral Leasing Acts and amendments) covering that commodity. Conditions under which the development of these minerals can occur are determined through land use planning. The Rock Springs Field Office boundary area will be open to consideration for exploration, leasing, and development of leasable minerals including oil, gas, coal, oil shale, and geothermal.

Salable Minerals

Salable minerals are disposed of under the Materials Act of 1947, as amended, and are discretionary actions. Deposits of salable minerals are scattered throughout Wyoming. Salable minerals include common varieties of sand, gravel, sandstone, shale, limestone, dolomite, and granite rock. Historical use of these materials includes building materials, road surfaces, and

tools. Today salable minerals are mainly used for maintaining roads on public lands and for activities associated with the oil and gas industry.

The Bureau provides sand, gravel, and stone from federal mineral deposits as necessary to meet the needs of federal, state, and local road construction and maintenance projects in the planning areas. Before issuing contracts or free use permits for salable minerals, the Bureau conducts the appropriate National Environmental Policy Act (NEPA) analyses including special studies or inventories of cultural values, threatened or endangered plant and wildlife species, and other resources. Stipulations or conditions may be included in the terms of the contract or permit to ensure protection of the natural resources present and reclamation of the land following project completion. Sand and gravel, scoria, flagstone, moss rock, and other minerals are available for free use or sale but are subject to conditions and stipulations developed on a case-by-case basis.

Site reclamation is required following any surface disturbing activity by mining for salable minerals. Reclamation includes removing all surface debris, recontouring, reducing steep slopes, and planting vegetation. All reclamation proposals must conform to State agency requirements and must be approved by the Bureau.

Leasable Minerals

Leasable minerals include fluid (oil, gas, geothermal) and solid minerals such as coal, trona, and phosphate. Bentonite and uranium are leasable on acquired lands.

Current use of coal is primarily for electric generation. Coal in Wyoming is most generally extracted using surface mining methods although in the past some coal was mined underground. Underground mining method is proposed for some future operations. Surface mining requires a federal coal lease from the Bureau, mining permits from the State, and mine plans approved by the division of Office of Surface Mining (OSM) of the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement (OSMRE). Surface mining involves the use of large equipment such as draglines, shovels, haul trucks, etc. Small drill rigs are used for exploration to determine the location, thickness, and obtain cores (for determining quality). Extracting coal using surface mining methods often results in large areas of surface disturbance from road construction, removal of topsoil and overburden, stock piling of these materials, etc. Once an area is mined out, reclamation begins and includes recontouring as closely to the original landscape as possible, the reconstruction of drainages, reseeding and monitoring to assure the habitat is useable. Coal is leased under the Mineral Leasing Act of 1920 and the Federal Coal Leasing Amendments Act of 1976.

Current uses of trona include baking soda, in paints, glass, toothpaste, soaps, ceramic tiles, porcelain fixtures, paper, water softeners and pharmaceuticals. Wyoming is the largest producer of trona in this country and has the largest known reserve of trona in the world. Trona is generally mined underground with the long wall mining method. Surface facilities are generally processing plants, offices, and maintenance buildings along with associated roads, power lines and pipelines.

Current uses of uranium are as a nuclear fuel for generation of electricity, nuclear explosive, in medicine, agriculture and industry as radiation for diagnostic tools, to detect welding problems, in the manufacture of steel products, or used to reduce the spoilage of certain foods. Uranium is generally categorized as a locatable but becomes leasable on acquired lands. Surface facilities

include processing plants, equipment maintenance buildings and offices which may need access roads, power lines and pipelines.

Leasable bentonite also occurs on acquired lands. Bentonite is surface-mined with shovels, haul trucks, etc. Drilling is used to locate the bentonite. Large areas of surface disturbance occur through removal of the overburden, overburden stockpiles, surface facilities and roads. Surface facilities include processing plants, equipment maintenance buildings and offices which may need access roads, power lines and pipelines.

Fluid leasable minerals include oil, gas, and geothermal steam. Leasing of oil and gas resources is done so under the authority of the Mineral Leasing Act of 1920 as amended. Leasing is administered by the Bureau through a competitive and non-competitive system. The Bureau receives nominations of lands to be posted for sale at bi-monthly competitive oil and gas sales. These nominations are gathered together into a parcel list and are sent to the respective Bureau field offices for the attachment of stipulations. These stipulations are derived from the associated field office land use plan. The parcel list is returned to the state office and once verified, is put together into the Notice of competitive oil and gas sale booklet. This Notice must be posted for the public 45 days before the lease sale is held. Once the parcel is sold, it is then issued into a lease.

Initial exploration for oil and gas resources is often conducted using geophysical methods. Geophysical exploration involves the use of all-terrain vehicles (ATVs) and vehicles to lay the geophones, drill the shot holes for charges, or as "thumpers" to create sound waves instead of using charges and then the removal of the geophones and reclamation of shot holes if used. Exploration for oil and gas (including coal bed natural gas) may also include the drilling of one or more wells to test for the reservoir and its productive viability. During the exploration phase of drilling, surface disturbing activities include the construction of roads, well pads, reserve pits, and other facilities.

Development of oil and gas fields includes construction of the same types of facilities used during exploration, but in addition it may be necessary to obtain federal rights-of-way access for product pipelines and power lines. Other surface uses associated with oil and gas development include construction of storage tank batteries and facilities to separate oil, gas, and produced water. Compressor engines (gas powered or electric) may be required to move gas to a pipeline, and diesel, gas, or electric pumps and other related equipment may be needed to lift the oil, gas, or water from the well to the surface.

Water is often produced concurrently with oil and gas production and disposal methods can range from subsurface re-injection, direct surface discharge, or discharge into a containment pond or pit. Some oil and gas fields may have large volumes of water or very little water. Water that cannot be discharged to the surface because of its chemical makeup may be treated before surface discharge or may be reinjected. Roads may be two track unimproved roads or improved crown and ditched roads designed by an engineer. One day to over a month may be required to drill the well depending on the type of well (vertical or directional), depth and types of rocks encountered. Reclamation involves reseeding and the recontouring of unneeded roads and unneeded portions of the well pads and associated facilities.

Geothermal resources are available for exploration, development, and production and are subject to the same surface disturbing and other restrictions applied to oil and gas exploration,

development, and production. Similar to oil and gas leasing, the Bureau administers geothermal leases through a competitive and non-competitive system. The Geothermal Steam Act of 1970 authorizes leasing.

Colorado River System Water Withdrawals from Leaseable Minerals activities

The Reasonably Foreseeable Development analysis conducted as part of the Rock Springs revised RMP NEPA environmental impact statement (EIS) process, predicts that approximately 6,300 wells could be drilled during the 20-year implementation period of the RMP. It is estimated that approximately 3,000 wells would be drilled that would cause depletions to the Colorado River system. Individual wells use water at differing rates, however, based on previous depletion amounts it can be anticipated that each well would use approximately 0.65 acre-feet of water for a total of approximately 1,950 acre-feet over the RMP period (Bureau 2024a). Any projects with new water depletions from the Colorado River System from leaseable minerals activities would be consulted on separately at the project level at part of the Colorado River Recovery Program.

Platte River System Water Withdrawals from Leaseable Minerals activities

The Bureau expects very few (up to 5) water withdrawals to the Platte River system over the life of the RMP. Any projects with new water depletions from the Platte River System from leaseable mineral activities would be consulted on separately at the project level as part of the Platte River Recovery Program.

Locatable Minerals

Locatable minerals include gypsum, silver, gold, platinum, cobalt and other precious and base minerals. Bentonite and uranium are also locatable except on acquired lands. Minerals are locatable under the 1872 Mining Law. Most public lands are open to locatable mineral mining with the exception of withdrawn lands. The Mining Law of 1872 sets the requirements for lode claims, placer claims, and mill sites as well as discovery, location, annual filings, assessment work, and mineral examinations to establish validity.

Livestock Grazing Program

The Livestock Grazing program management objective for the revised Rock Springs RMP area is to maintain or improve forage production including range condition and to provide a sustainable resource base for livestock grazing on public lands while improving wildlife habitat and watershed conditions.

A typical grazing parcel on Bureau-administered land within the revised Rock Springs RMP area would be permitted on a yearlong use basis with the amount of allowable forage identified as Animal Unit Months (AUM's) of use. The livestock operator may, with concurrence from the Bureau, change the use pattern from year to year to compliment healthy rangelands, depending on the available forage, condition of the pasture and weather conditions, or to achieve predetermined management goals. Permits are normally issued for a 10-year period. If Bureau personnel identify a need for specific management or a change in the current pattern of use it can be stipulated on the permit when it is re-authorized. Cattle are the predominant class of livestock grazed on Bureau-administered lands in the revised Rock Springs RMP area, however, sheep, horses and bison are also authorized.

In some cases, cross-fencing (subdividing an allotment, pasture, or ranch with fence) is used to accomplish management needs or when a parcel is leased by more than one lessee. Temporary

fencing, including electric fencing may be authorized to accomplish management goals. Fencing might be used to reduce grazing intensity or distribute grazing away from important resources (streams, springs, riparian areas, wetlands, cottonwood galleries, rehabilitation areas). When fencing is proposed, either permanent or temporary, fences are built to standards developed in the Bureau's Fencing Handbook. These standards are required to reduce the amount of restriction or hazards to wildlife. Fence construction and maintenance would likely require access to the site, possible removal of vegetation or uneven surface materials (rocks, trees, sand), stringing wire, digging postholes, building fence braces, building rock jacks, cutting or removing on or off site building materials (fence posts, rails, gathering rocks), weed management (spraying, cutting, pulling), or if the project is large enough, the possibility of camps for workers. The use of corrals for confinement of livestock for various purposes (sheep shearing, overnight holding of livestock) requires construction and maintenance activities including, hauling building materials, heavy equipment use, and access to the corral site.

The livestock grazing program may also include rangeland improvements such as stock water ponds, pits, or reservoirs; pipelines and trough systems; spring developments; storage tanks and troughs; wells; or temporary tanks and water hauling. These water improvements better distribute the use and intensity of use by livestock away from streams, rivers or wetlands and help protect important riparian areas and could require the use of hand tools, mechanical or heavy equipment, hauling/transporting of materials (gravel, dirt, tanks), and clearing of vegetation. The Bureau anticipates very few livestock grazing water improvements (only anticipating one to four for the entire livestock grazing program per year over the life of the revised RMP) and Bureau would participate in either the Platte River or Colorado River Recovery Program, respectively, and conduct site-specific section 7 consultation on these if they would result in new water depletions to either the Platte or Colorado River systems.

Rangeland restoration to improve range health is also a part of livestock management. These activities might include aerial seeding and possibly herbicide application, seeding by disking or drilling (using a tractor or other heavy equipment), fertilizing, plowing, chaining, or rangeland pitting.

Most livestock operators use off-highway vehicles (OHVs) (pick-up trucks, 4-wheelers, motorcycles), ride horseback, or walk to access their allotments. "Herding" (moving) livestock by walking, horseback riding, and the use of dogs to distribute livestock on allotments or trailing (move on or off of allotments), and the use of domestic sheep bed grounds (temporary site to bed down flock(s) of sheep) and associated sheep herder camps are commonly employed methods of livestock operations. Road construction and maintenance, for access to various livestock operations would likely require heavy equipment use, possible mechanical vegetation removal or spraying with herbicides, and material hauling. Road construction may be authorized in conjunction with a special project such as a livestock watering facility. If proposed, the road construction and water facility would require surveys for ESA listed species prior to approval if the project is proposed in suitable habitat.

An environmental assessment (EA) is prepared prior to issuing new grazing leases, surface disturbing activities, and range improvement projects. Allotments are monitored by Bureau range specialists and changes in use are developed if resource conditions warrant such a change. In extreme situations such as extended drought, permits may be placed in a reduced use or non-use status until conditions improve. These specific permit issuances are subject to separate consultation under the ESA.

Bureau of Land Management-administered surface lands in the Rock Springs revised RMP area are managed to achieve the four fundamentals of rangeland health outlined in grazing regulations (43 CFR § 4180.1) which are: (1) watersheds are in, or are making significant progress toward, properly functioning physical condition; (2) ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities; (3) water quality complies with State water quality standards and achieves, or is making significant progress towards achieving, established Bureau management objectives; and, (4) habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal proposed or candidate threatened and endangered species, and other special status species. A complete discussion can be found in the Approved Resource Management Plan, 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. Monitoring of riparian/wetland areas by interdisciplinary teams using the proper functioning condition (PFC) methodology is how the Bureau determines whether a given watershed is functioning properly. This entails the use of a team of interdisciplinary personnel (generally 2-5 personnel) to assess the condition of the riparian/wetland habitat within a given allotment.

ACTIONS AFFECTING PLATTE RIVER AND COLORADO RIVER FLOWS

The Platte River Recovery Program and the Colorado River Recovery Program provide programmatic, streamlined, processes for section 7 consultation under the ESA to expedite section 7 compliance on water projects in these river basins, respectively. Participation in either of these recovery programs provides section 7 compliance for the vast majority of new and existing water projects in these basins. Depletion consultations under section 7 are tiered to the Platte River Recovery Implementation Program and/or the Colorado River Recovery Program facilitating the streamlined consultation process for all such future depletion consultations. The Bureau has agreed to continue participation in these recovery programs for projects authorized under the Rock Springs RMP and will consult in accordance with section 7 on all new projects, and maintenance and/or expansion of existing projects that will result in water depletions to these river systems.

Platte River Depletions

Since 1978, the Service has consistently taken the position in its section 7 consultations that federal agency actions resulting in water depletions to the Platte River system may affect, and are likely to adversely affect, one or more federally listed threatened or endangered species and their associated designated critical habitat. Currently, it is recognized that federal agency actions resulting in water depletions to the Platte River System are likely to adversely affect the whooping crane and its designated critical habitat, piping plover and its designated critical habitat, pallid sturgeon, and western prairie fringed orchid. Under the 2006 Wyoming Depletions Plan all proposed water-related activities with a federal nexus are subject to ESA consultation with the Service.

While the proposed Rock Springs revised RMP does not authorize these, or any other projects, leading to depletions in the Platte River Basin the Bureau has committed to participating in the Platte River Recovery Program and will consult on each future well development or maintenance as each will require formal section 7 consultation for effects of depletions to downstream

federally listed species of the Platte River and their associated designated critical habitat. Over the life of the RMP, the Bureau expects up to five projects leading to water depletions in the Platte River System.

Colorado River Depletions

Formal consultation is required for projects that may lead to depletions of water to the Colorado River system. A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) was initiated on January 22, 1988. The Recovery Program was intended to be the reasonable and prudent alternative to avoid jeopardy to listed fish from depletions of the Upper Colorado River. The Bureau will continue to participate in this recovery program for activities that will lead to depletions to the Colorado River system.

Federal agency actions resulting in water depletions to the Colorado River system may affect the bonytail, Colorado pikeminnow, humpback chub, razorback sucker and their associated designated critical habitat downstream in the Colorado River system. While the proposed Rock Springs revised RMP does not authorize these, or any other projects, under the proposed Rock Springs revised RMP, the Bureau anticipates authorizing new projects that would result in minor depletions (≤100 acre-feet) to the Colorado River, including up to 80 livestock-related water developments (anticipated to be 2.96 acre-feet/project) and approximately 3,000 oil and gas-related well drilling activities (0.65 acre-feet/well) (Bureau 2024a). The proposed Rock Springs revised RMP does not authorize these projects and implementation of these projects, or any other projects leading to depletions to the Colorado River, and these will require future site-specific section 7 consultation for effects of depletions to downstream federally listed fishes and their designated critical habitat.

Reinitiation Notice

This concludes formal consultation on the proposed Rock Springs Resource Management Plan revision as outlined in your request for formal consultation. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

Thank you for your assistance in the conservation of endangered, threatened, proposed and candidate species. In future communications regarding this programmatic biological opinion, please refer to consultation number 2023-0053329. If we may be of further assistance, please contact Alex Schubert of my staff at (307) 757-3717.

References

United States Bureau of Land Management [Bureau]. 2005a. Final Statewide Programmatic Grizzly Bear (*Ursus arctos*) Biological Assessment. U.S. Department of Interior. BLM State Office. Cheyenne, Wyoming. 197 pp. + Appendices.

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Biological Assessment: Ute ladies'-tresses (*Spiranthes diluvialis*). Cheyenne Bureau of Land Management Office. October 2005. 47 pp.

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- United States Bureau of Land Management [Bureau]. 2023. Draft Environmental Impact Statement for the Rock Springs Resource Management Plan. U.S. Bureau of Land Management. Rock Springs, Wyoming.
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APPENDIX – Description of Activities for the Rock Springs Revised Resource Management Plan

AIR RESOURCES

Air quality in the region is affected primarily by the magnitude and distribution of air pollutant emissions sources, topography, and the regional climate. Regional sources of air pollution impacting the planning area include mining operations, oil and gas development, coal fired power plants, windblown dust, and wildfire. Additionally, air quality in the region is also influenced by high winds that transport dust and pollutants from industrial sources and

metropolitan areas outside of the planning area. Air pollutants addressed include criteria pollutants, hazardous air pollutants, greenhouse gases, and sulfur and nitrogen compounds. 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. Air quality in the geographic area is defined by its visual appearance and measured concentrations of air pollutants. These characteristics can be affected by naturally occurring phenomena such as wind, temperature, humidity, geographic features, vegetation, and wildfire.

Regional haze regulations developed by EPA require the Bureau to measure the distance at which one can distinguish a dark landscape feature. Haze-causing pollutants (mostly fine particles) are directly emitted to the atmosphere or are formed when gases emitted to the air form particles as they are carried downward. During air management activities, the Bureau applies dust control measures, obtains permits from DEQ, and collects meteorological and/or air quality data. While restricting surface development activities, the Bureau ensures that operators cover conveyors at mine sites, restrict flaring of natural gas, limit emissions, and restrict spacing on projects.

Air quality management objectives are to maintain or enhance air quality and minimize emissions that could result in atmospheric deposition (acid rain), violations of air quality standards, or reduced visibility. Laws controlling air pollutants in the United States are the Clean Air Act of 1970 and its amendments, and the 1999 Regional Haze Regulations. The concentration of air contaminates in the Rock Springs Resource Area need to be within limits of Wyoming ambient air quality standards (WAAQS) and national ambient air quality standards (NAAQS). Both WAAQS and NAAQS are legally enforceable standards for PM₁₀, NO₂, ozone, SO₂, and CO.

In addition to NAAQS and WAAQS, major new sources of pollutants or modifications to sources must comply with the New Source Performance Standards and Prevention of Significant Deterioration (PSD). The PSD increments measure PM₁₀, SO₂, and NO₂. The PSD program is used to measure air quality to ensure that areas with clean air do not significantly deteriorate, while maintaining a margin for industrial growth.

The State of Wyoming maintains air quality standards and determines whether it is necessary to regulate emissions. When necessary, the State regulates emissions through its State Implementation Plan (SIP) for air quality by promulgating the appropriate rule. Objectives of the State of Wyoming SIP include the protection of public health and safety and the well-being of sensitive natural resources. Thus, the Bureau minimizes, within the scope of its authority, any emissions that may add to atmospheric deposition, cause violations of air quality standards, or degrade visibility. The EPA provides oversight responsibility during this process and approves the State of Wyoming SIP, if appropriate. State standards enforced in the Rock Springs Resource Area will be as stringent or more stringent than federal standards. Special requirements to alleviate air quality impacts will be considered on a case-by-case basis in processing land use authorizations.

SOIL RESOURCES

The soils in the planning area have been impacted by fires, timber harvest, solid mineral exploration, oil and gas exploration, recreation, livestock grazing, and wildlife. Position on the landscape, slope length and gradient, chemical and physical properties, surface texture and
structure, plant cover, and erosion control practices contribute to susceptibility of soils to wind and water erosion. The soils possess several limitations that reduce the potential for establishing vegetation following a disturbance. Highly erodible soils are characterized by the loss of valuable topsoil resulting from action by either wind or water and have limited reclamation potential. Soils in the Planning Area are especially dependent on vegetative cover to prevent erosion, and erosion increases when the vegetative community is disturbed by surface disturbing activities such as road construction, fire, intense grazing, or any other use that reduces the amount of vegetative cover. Saline soils have calcium, magnesium, or other non-sodium salts dominating their ionic composition, although they might also contain some sodium salts. Soil salinity can have significant effects on soil erosion and reclamation potential. Because erosion of saline soils can also have significant effects on downstream water quality, saline soils are managed to minimize impacts in these areas and to promote the revegetation of previously disturbed areas to the greatest extent possible.

The planning area contains numerous types of sensitive soils. The most sensitive and of highest importance are those soils which have biological crusts. Biological soil crusts are a mosaic of bacteria, algae, lichens, mosses, and microfungi that weave through the top few centimeters of soil, gluing loose particles together and forming a matrix that stabilizes and protects soil surfaces from erosive forces. These biological soil crusts, when undisturbed, tend to occupy the nutrient-poor zones between vegetation clumps. Biological soil crusts are well-adapted to severe growing conditions, but poorly adapted to compressional disturbances from vehicles, people, or animals.

Activities associated with soil resources may also include reclamation of abandoned mines and open shafts, removal of waste rock in floodplains or streams, or cleanup of tailings. Soil sampling and surface soil erosion studies may also be conducted. These soil resource-related activities in the Rock Springs resource area mainly are in support of other programs.

WATERSHED AND WATER QUALITY

There are approximately 1,700 miles of stream and 46,000 acres of lakes, ponds, and reservoirs in the planning area. The planning area is also home to a collection of dunal ponds within the Greater Sand Dunes area. Dunal ponds are often found on the leeward side at the base of large dunes and are freshwater ponds fed by snow buried by blowing sand in the winter, which slowly emerge into surface water throughout the rest of the year. Major reservoirs in the area include Eden Valley Reservoir, Big Sandy Reservoir, Fontenelle Reservoir, and Flaming Gorge Reservoir. The portion of the planning area that is drained by the Green/Colorado River is subject to the Colorado River Salinity Control Act of 1974. The major portion of the planning area not drained by the Colorado River is within the Great Divide Basin which is a closed basin. The portion of the planning area near South Pass that is drained by the Sweetwater River is located within the Missouri River Basin and is subject to all applicable rules and agreements for that watershed.

Water bodies in Wyoming are classified for water quality regulation according to designated uses by the Wyoming Department of Environmental Quality (WDEQ) and have different water quality standards based on their designation. The planning area has 29 miles of one Class 1 river, the Sweetwater River. The only notable portion of Class 2 waters within the planning area are 42 miles on the Big Sandy River between the confluence with the Green River and the confluence of the Little Sandy River near Farson.

Within the planning area, there are three river sections that are classified as impaired. On Bitter Creek and Killpecker Creek, 58.1 miles and 6.3 miles, respectively, are listed as being impaired by fecal coliform. The same 58.1 miles of Bitter Creek are also impaired by chloride concentrations. Trout Creek is impaired by sedimentation/siltation at a level that does not meet water quality standards at miles 4.6 and 5.2.

Although much has been documented about regional groundwater occurrence in the area, the local aquifer systems are not well defined because of the local variations within geologic layers. Water yields vary widely from good (greater than 20 gallons per minute) to poor (less than 5 gallons per minute) between and within these formations.

The Bureau performs a variety of activities designed to preserve and protect water, and watershed quality. Some of these activities are implementation of watershed plans, identification of heavy sediment loads, monitoring and minimizing erosion, evaluating and restricting surface development activities, and monitoring water quality. These activities at times involve field activities and the use of heavy equipment and hand tools.

The Bureau watershed management activities include evaluating proposed projects, applying management practices, applying seasonal closures, monitoring public drinking water, and completing groundwater studies. Field activities can involve developing riparian/wetland exclosures; constructing stream crossings that allow for appropriate sediment and flow passage; practicing stream improvement practices, such as increasing sinuosity in channels by using hand tools to construct natural structures that include rock or other natural materials; constructing artificial instream structures using heavy equipment, steel, geotextile fabrics, and other materials; cutting, planting, and seeding to restore function in riparian/wetland areas; implementing pitting; and maintaining water-spreader dikes. Other activities can involve imposing restrictions on activities such as mineral exploration and development, pipelines, power lines, roads, recreation sites, fences, and wells.

Through water resource management, the Bureau seeks to maintain or improve surface and groundwater quality consistent with existing and anticipated uses and applicable state and federal water quality standards, provide for the availability of water to facilitate authorized uses, and minimize harmful consequences of erosion and surface runoff. Water resources are also to be protected or enhanced through site-specific mitigation guidelines.

During watershed management activities, the Bureau develops pollution prevention plans; ensures that rights to water-related projects are filed; delineates no-chemical-use buffer zones; designs activities to promote reduction of channel erosion; restricts surface disturbance near water sources and sensitive soils; and improves, maintains, and restores damaged wetlands or riparian areas by restoring hydrologic function. The Bureau also provides technical expertise on other activities, such as livestock ponds and waterfowl monitoring activities, and provides impact analyses of oil and gas development or any surface disturbance projects. The Bureau provides technical expertise in reestablishing floodplains, iron mines, and contoured railroad grades.

VEGETATIVE COMMUNITIES

The vegetative resources in the planning area are divided into three main areas: Rangelands/Uplands, Riparian, and Forests and Woodlands. Each of these main areas is made up of various vegetation communities or associations. Rangeland/Uplands within the planning area mainly consist of grassland and sagebrush communities. Patches of grasslands are found scattered throughout low and high-density sagebrush communities. These grassland communities provide important habitat and forage for wildlife. Grass species dominate these communities, but shrubs, subshrubs, and cushion plants are also common.

Sagebrush communities are the most extensive plant cover type in the planning area as well as in the surrounding Wyoming Basin area and intermountain region. Adaptations to different habitat characteristics (e.g., soil type, climate, and elevation) have resulted in a variety of sagebrush species in the western United States. Sagebrush communities in the planning area are dominated by two subspecies of big sagebrush (Wyoming big sagebrush and basin big sagebrush), with a well-established grass and forb component.

Wetlands and riparian areas occur throughout the planning area and are most frequently located on the lands adjacent to surface waters but may also be located in lands with a high underground water table. They are dominated by vegetation that is adapted to a consistent water supply and can withstand soil saturation, and periodic flooding. These small, but important, ecosystems serve as a biological oasis and represent a vegetation structure, soil, and hydrology unique relative to the vast expanses of sagebrush and prairie grass that dominate the landscape of the region. They are prized for their fish and wildlife habitat, water supply, cultural, and historic and recreational values as well as for their economic values which stem from use in livestock production, forest management, and mineral extraction.

Forest and woodland communities consist of broadleaf species, including aspen stands, cottonwood, and willow, and at higher elevations, conifer communities. Aspen stands occur in areas with high moisture availability such as on northern and eastern exposures where snowpacks accumulate. Aspens often occur on the edges of conifer stands as a transition between sagebrush and conifer zones.

Vegetation objectives for the Bureau are to maintain or improve the diversity of plant communities to support multiple uses, such as livestock grazing, wildlife habitat, timber production, watershed protection, visual resources, the reduction in the spread of noxious and invasive weeds, and the protection of important habitats for special status plants species. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species, and consultation with the Service will be initiated.

As part of the vegetation management program, the Bureau conducts prescribed burns, spraying, and light and heavy mechanical treatments; uses species-specific insects and livestock grazing; implements noxious and invasive weed and pest control programs; and plants vegetation. Light mechanical control includes cutting and thinning with hand tools. Heavy mechanical control includes brush beating, cutting, and thinning with machinery.

Noxious and invasive weeds are located within the Rock Springs resource area. Noxious weeds are listed by the state, whereas invasive weed species are listed by the Bureau. The three types of noxious weeds or invasive weeds control measures used by the Bureau on public lands are chemical, biological, and mechanical. Weed control is conducted in cooperation with County Weed and Pest Districts, permittees, grantors, lessees, and private landowners. Only federally approved pesticides and biological controls are utilized, and all label directions are followed. If

herbicides are proposed for use, minimum toxicity herbicides will be used, with appropriate buffer zones along streams, rivers, lakes, and riparian areas, including those along ephemeral and intermittent streams.

Chemical controls include growth regulators, contact herbicides, and inhibitors. The majority of rangeland applications are applied with backpack sprayers; other treatments are applied using aircraft. Chemical treatments to ROWs and oil- and gas-related facilities are applied using vehicle-mounted sprayers and aircraft. Biological controls include using microbiotic organisms (fungus and rusts) and insects (beetles, midges, and wasps) and are applied by hand. Ungulates (goats and livestock) used to control noxious and invasive weeds are herded. Mechanical control is normally performed through hand-pulling and digging, which is not as intrusive as mowing or other machine use.

INVASIVE SPECIES AND PEST MANAGEMENT

Invasive species disrupt or have the potential to disrupt or alter the natural ecosystem function, composition, or diversity of the site it occupies. Noxious weeds are designated by the State of Wyoming or declared by County Weed Control Districts. Invasive species are an increasing problem in the planning area and are impacting water and other resources. The primary species targeted by the field office include Russian knapweed, spotted knapweed, Canada thistle, musk thistle, bull thistle, houndstongue, hoary cress, perennial pepperweed, Russian olive, and tamarisk, as well as halogeton and cheatgrass. These plants are typically found in sagebrush/grassland, desert shrub, and riparian/wetland community types. The zebra and quagga mussels are also of particular concern to native aquatic invertebrate communities in cold water systems and could potentially pose a threat to local trout populations in the planning area. They have been identified in many nearby waters.

Invasive species within the planning area are controlled through cooperative agreements with the Sweetwater County Weed and Pest Control District. In addition to the County Weed and Pest District, the Rock Springs Field Office (RSFO) works in cooperation with the Wyoming Game and Fish Department, State Lands Division, local Natural Resources Conservation Service offices, and private landowners. Approximately 1,000 acres of invasive species-infested areas within the planning area are treated annually.

Wyoming-designated pests also include grasshoppers, Mormon crickets, prairie dogs, ground squirrels, mountain pine beetle, and beet leafhopper. Although applying pest control measures has been limited, it is reasonable to assume that issues such as the West Nile virus, bird flu, nonnative animals, and tree pathogens may need to be addressed in the foreseeable future.

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service – Wildlife Service is currently the Bureau's agent for controlling animal pests. The preferred method for treating grasshoppers and Mormon crickets is by Reduced Agent Area Treatments (RAAT). RAATs are a grasshopper suppression method in which the rate of insecticide is reduced from conventional levels, and treated swaths are alternated with swaths that are not directly treated. This method suppresses grasshopper numbers within treated swaths while allowing grasshoppers to persist in untreated areas, thereby allowing for persistence of grasshopper predators and parasites within the habitat.

WILDLIFE AND FISH

Over 350 species of wildlife are found on a variety of habitats on the public lands in the planning area. Bureau manages wildlife habitat on public lands, while the WGFD manages the wildlife populations. The United States Fish and Wildlife Service (USFWS) has regulatory authority over migratory birds and species that are listed as endangered, threatened, or proposed for listing. The Bureau and WGFD have officially coordinated their management activities since 1976. The distribution and abundance of wildlife in the planning area are primarily functions of habitat conditions.

The planning area primarily lies within the upper Green River Basin of the Colorado River freshwater ecoregion with a very small portion in the upper Sweetwater River drainage of the Middle Missouri freshwater ecoregion. There are 25 species of fish known to occur in the waters of the planning area, eight of the 25 species are native.

Through wildlife and fisheries habitat management, the Bureau maintains and enhances habitat for a diversity of wildlife and fish species and provides habitat for threatened, endangered, candidate, proposed, and special status animal and plant species in compliance with the ESA, Bureau Manual 6840, and approved recovery plans. The Bureau wildlife habitat management program supports population objective levels set by the Wyoming Game and Fish Department.

Wildlife program activities may include inventory and monitoring, habitat improvement projects, developing stipulations and protective measures, and predator control in coordination with Animal and Plant Health Inspection Service of the U.S. Department of Agriculture. Inventory and monitoring include habitat assessments and species surveys and are used to assess the effectiveness of the implementation of timing stipulations, reducing conflicts between species and other activities, and for appropriate mitigation. In addition, inventory and monitoring are used to identify and describe habitat requirements and life history characteristics of threatened, endangered, or special status species.

The wildlife program supports other resources, including fire and fuels; forestry; minerals, including leasable, locatable, and common variety mineral exploration; recreation; cultural and paleontological resources; lands and realty; and wild horse management activities.

Habitat improvement projects include but are not limited to the development of water sources, construction and maintenance and removal of fences, the management of other resource activities to conserve forage and protect habitat, the improvement of forage production and quality of rangelands; and vegetative treatments (prescribed fires, mechanical, chemical, biological treatments, cutting, thinning, planting, seeding, and pitting). Other wildlife management activities include, but are not limited to, modifying existing projects, constructing artificial structures; constructing guzzlers; implementing road closures (permanent and seasonal); constructing exclosures; using heavy equipment and hand tools; and closing areas to leasable, locatable, and common variety minerals for the protection of wildlife species.

In addition, other habitat management activities may include but are not limited to improving fisheries and wildlife habitat; documenting resource damage; implementing stream improvement practices; and restoring streams to a state of dynamic equilibrium by utilizing restoration techniques.

WILD HORSES AND BURROS

The RSFO protects, manages, and controls wild horses under the authority of the 1971 Wild Free-Roaming Horses and Burros Act (as amended by Congress in 1976, 1978, and 2004) to ensure that healthy herds thrive on healthy rangelands. One of the Bureau's key responsibilities under the law is to manage for a "thriving natural ecological balance." This includes identifying the appropriate management levels (AML) in two Herd Management Areas (HMA) currently found in the planning area. The White Mountain HMA and the Little Colorado HMA are currently the only HMAs within the Rock Springs planning area.

The Bureau wild horse management program uses herding, corralling, transporting, monitoring, and roundups for wild horse management. The Bureau wild horse management specialists coordinate with wildlife biologists and archeologists to reduce and/or eliminate impacts to wildlife resources. The Bureau constructs and uses short-term temporary facilities (traps and holding facilities) and long-term permanent facilities (corrals, boundary fences, and water development). There are gatherings of wild horses that use helicopters and wranglers to round up the wild horses. Traps consist of wings (50–60 steel posts) that funnel down to portable corrals, 60 to 30 feet in size.

WILDLAND FIRE ECOLOGY AND MANAGEMENT

In any year, the Rock Springs planning area will experience approximately 34 to 50 unplanned ignitions resulting in approximately 1,800 to 2,200 burned acres. An examination of the available historical record (Planning Area) and experience indicate that the typical wildfire in the planning area is a natural caused single tree (juniper) fire of less than one acre. However, occasionally, larger unplanned events skew the average acreage per fire. Only three wildfires larger than 3,000 acres have occurred in the planning area since 1984; these include the Wildhorse Basin (36,700 acres), Sheep Mountain (36,360 acres) and Pepper (13,200 acres).

The two major categories of activities involved in the Bureau's fire management program are fuels treatments (including biological, chemical, prescribed burning, and mechanical treatments) and wildland fire suppression. During fuels treatment activities, the Bureau evaluates areas on a case-by-case basis; writes activity plans, which encompass any of the above listed treatments; coordinates with all necessary parties; and conducts treatment projects. Fuels treatments are used to enhance natural resources in the area. They can be used to dispose of slash and residue from timber sales. Fuels treatments are sometimes used to reduce the fuel levels before a treatment activity. Most fuels treatments are conducted to improve wildlife habitat and rangeland health.

Wildland fire suppression activities, on the other hand, are conducted on an emergency basis. Preplanning for wildland fire suppression takes place in many forms before a fire may occur. Wildland fire suppression activities vary with the intensity of the wildland fire and can involve the use of off-highway vehicles (OHV), hand tools, aviation resources, and heavy equipment such as bulldozers. Firelines are constructed to contain the wildland fire. Chemical fire suppression agents (ground-based) containing surfactant compounds, ammonium nitrate compounds, and chemical dyes may be used if needed. In addition, fire retardant drops containing chemical dyes (aircraft dispersal) are used. These may affect the aquatic environment if used where the chemicals may enter streams. Water is withdrawn from nearby sources to suppress the fire. Nearby sources may include streams, lakes, or public water supplies. After the fire is extinguished, the Bureau may use rehabilitation techniques to stabilize the disturbed or burned area. Rehabilitation techniques may involve planting small trees, grass, forbs, and shrubs to bring the site back to its original vegetative state.

CULTURAL RESOURCES

Historic sites, prehistoric sites, and traditional cultural properties are widespread throughout the planning area. Tribes have identified a host of important cultural sites and landscapes important to their cultures and life ways. One of these sites, the White Mountain Petroglyphs, has become a major tourist attraction. Other important cultural resources such as the South Pass National Historic Landmark also draw thousands of visitors each year. Cultural resources include prehistoric and historic archaeological and architectural structures, features, and objects, as well as Native American traditional cultural and religious resources. 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. Together these resources represent human use of the area by Native American and Euro-American cultures, covering a time from the Paleo-Indian period through the present.

Under this program, the Bureau performs a variety of activities to preserve, protect, and restore cultural and historical resources. The Bureau consults with Tribes on their preferred methods for preservation. The Bureau inventories, categorizes, and preserves cultural resources, conducts field activities, performs excavations, maps and collects surface materials, researches records, and photographs sites and cultural resources. Temporary campsites may be authorized for these activities. Inventory data collection activities are used for documentation and development of mitigation plans prior to other resource program surface disturbing activities. Inventory activities commonly entail the use of hand tools. Data recovery activities occasionally entail the use of power tools and heavy equipment. The Bureau's cultural resource land management activities involve managing sites for scientific, public, and sociocultural use; developing interpretive sites; restricting certain land uses; closing certain areas to exploration; prohibiting some surface disturbing activities; and preparing interpretive materials. The Bureau also seeks listing of eligible sites on the National Register of Historic Places (NRHP), installs protective fencing for trail segments and other cultural resources, stabilizes deteriorating buildings and resources, acquires access to sites, when necessary, performs data recovery excavations, pursues withdrawal of areas from exploration and development of locatable minerals, designates avoidance areas, pursues cooperative agreements, and identifies and interprets historic trails.

The Bureau performs cultural resource inventories normally in response to other surface disturbance activities. Inventories include transects set 30 meters (100 feet) apart from each other. Cultural resources are identified and protected on a case-by-case basis, according to site-specific needs. Cultural properties eligible for NRHP listing are managed for preservation of cultural and historic values.

PALEONTOLOGICAL RESOURCES

The management of paleontological resources on public lands is directed for the protection of vertebrate and scientifically significant plant and invertebrate fossils for the benefit of the public as a whole. Significant fossils are defined by Bureau policy as including all vertebrate fossil remains and those plant and invertebrate fossils as determined on case-by-case basis. Fossils are typically preserved in sedimentary rocks, or in a few unique situations, in volcanic igneous and some meta-sedimentary rocks. They can range in microscopic in size, (radiolarians, foraminifera, bacteria and algae, vertebrates, and pollen) to macroscopic (flowers, leaves,

petrified wood, shells or invertebrate animals, and the bones, teeth tracks, feeding traces, coprolites and burrows of vertebrates).

The Bureau performs a variety of activities to preserve, protect, and restore paleontological resources. During inventory activities, the Bureau inventories, categorizes, and preserves paleontological resources; conducts field activities; performs excavations; maps and collects surface materials; researches records; and photographs sites and paleontological resources. Inventory data collection activities are used for documentation and development of mitigation plans prior to other resource program surface disturbing activities. Inventory activities commonly entail the use of hand tools, power tools, or heavy machinery. The Bureau's paleontological resource land management activities involve managing sites for scientific and public use, developing interpretive sites, restricting certain land uses, closing certain areas to exploration, prohibiting some surface disturbing activities, stabilizing erosion (e.g., burying exposed sites), preparing interpretive materials, and allowing the collection of certain invertebrate fossils. The Bureau pursues withdrawal of areas from exploration and development of locatable minerals, designates avoidance areas, pursues cooperative agreements, and identifies and interprets paleontological sites.

Paleontological resources are managed to protect their important scientific values. Area closures, restrictions, or other mitigation requirements for the protection of paleontological values would be determined on a case-by-case basis. Collecting of scientifically significant vertebrate fossils by qualified paleontologists would be allowed by permit only.

LANDS WITH WILDERNESS CHARACTERISTICS

Section 201 of the Federal Land Policy and Management Act of 1976 (FLPMA) requires the Bureau to maintain on a continuing basis an inventory of all public lands and their resources and other values. This inventory requirement includes maintaining information regarding wilderness characteristics. Section 201 also provides that the preparation and maintenance of the inventory shall not, of itself, change or prevent change of the management or use of the lands. Additionally, Section 202 of FLPMA requires Bureau to rely on resource inventories in the development and revision of land use plans, including inventory information regarding wilderness characteristics. There are currently a total 63,918 acres in the Rock Springs planning area areas which meet the FLPMA definition for lands with wilderness characteristics.

VISUAL RESOURCES

The landscape found in the Wyoming Basin Province is characterized primarily by highly erodible soils and multi-colored, horizontally layered sedimentary bedrock. These conditions have generated the formation of the colorful badlands landscape common throughout most of the province. Between these badland areas, the landform is primarily low rolling or flat-topped hills. Dramatic elevation changes and steeper slopes become more dominant near the Wyoming and Wind River Mountain ranges, which offer more visual contrast due to the sweeping topography.

Developments within the field office include: oil and gas production, ranching and other rural or small community developments, wind and solar energy development interrupt the repeating patterns of the landscape, creating disruptions to the line, shape, and texture of natural landscapes. The degree to which these intrusions affect visual resources varies greatly with each individual project.

Visual resource values are defined through the implementation of the Bureau's visual resource management methodology, beginning with a classification system comprising three phases: (1) inventory, (2) establishment of management classes through land use plans; and (3) analysis of management actions to ensure compliance. These classifications are based on scenic quality, visual sensitivity levels, and viewer distance zones.

Through Visual Resource Management (VRM), the Bureau maintains or improves scenic values and visual quality and establishes VRM priorities in conjunction with other resource values. A visual resource inventory and classification process is a qualitative analysis performed throughout the Rock Springs resource area. A visual resource inventory provides, (1) an inventory tool that portrays the relative visual quality of a landscape, and (2) a management tool that delineates visual protection standards by which surface disturbing activities may occur and establishes guidelines for the rehabilitation of existing projects, facilities, and disturbances.

Effectively, Class I areas prohibit surface disturbances because they are in WSAs. Class I areas preserve the existing character of the landscape, provide for natural ecological changes only, and do not preclude very limited management activity. In Class I areas, the level of change to the characteristic landscape should be extremely low and must not attract attention. Class I areas include primitive areas, WSAs, some natural areas, some WSRs, and other similar areas where landscape modification activities should be restricted.

To retain the characteristics of a Class II rating, management actions or authorizations could occur only if they are properly mitigated. These mitigations must prevent development from attracting the attention of the casual observer. They must adhere to the following limits: the existing character of the landscape should be retained; the level of change to the characteristic landscape should be low; management activities may be seen but should not attract the attention of the casual observer; and any changes should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. If a proposal cannot be adequately mitigated to retain the character of the landscape, then modifications to the proposal would be required.

Class III areas partially retain the existing character of the landscape, are areas where changes in the basic elements (form, line, color, or texture) caused by a management activity should not dominate the view of the casual observer and are areas where changes should remain subordinate to the visual strength of the existing character.

Class IV areas are areas where management activities may dominate the view and be the major focus of viewer attention and are areas where changes may subordinate the original composition and character. However, they should reflect what could be a natural occurrence within the characteristic landscape.

ENERGY AND MINERALS

Bureau-managed minerals within the RSFO include leasable fluid minerals, leasable solid minerals, saleable minerals, and locatable minerals. The fluid minerals include oil and gas, and geothermal resources. Leasable solid minerals include coal, trona, oil shale, and phosphate. Locatable minerals include uranium, gold, diamonds, zeolites, nephrite jade, titaniferous sand, and rare earth elements. Saleable minerals include sand and gravel and other saleable minerals. Energy and minerals exploration involves opening new areas to geophysical exploration, leasing and potentially drilling. Mineral development involves an expansion of the exploration phase,

with construction and initial reclamation of well pads, access roads, reserve pits, wind power associated with leases, and other facilities that may include aboveground power lines and buried pipelines. Stipulations included in the lease language allow protection by controlled surface use (CSU) restrictions or no surface occupancy (NSO) restrictions if the resource requires these measures. Partial reclamation is required during the production phase, and full restoration is required after the project is abandoned. Rock Springs Field Office personnel then review the parcel for potential conflicts with other resources, and appropriate stipulations for the protection of wildlife and other sensitive resources are included in the lease language.

Leasable fluid minerals

Oil and Gas wells in the planning area are drilled as conventional wells; however, infill field development is typically directional drilled from multi-well pads. Typically, these wells range in depth from 7,000 to 13,000 feet in true vertical depth. There are currently 85 operators producing oil and gas resources in the planning area.

Leasable solid minerals

In the planning area, coal mining occurs on federal, state, and private lands. Coal deposits underlie a large portion of the planning area, but vary in depth, thickness, and quality. Most of today's economically important coal deposits occur on the flanks of the Rock Springs Uplift. Currently there are two companies mining coal in the planning area. The combined coal production from all of the mines in the Planning Area for the year 2009 totaled about 9.2 million tons with approximately 1.5 million tons federal. There are no outstanding or pending applications for federal coal leases or exploration licenses on lands within the Planning Area. The last leasing was completed in 2013 and recent coal production has been in decline. Trona (sodium), oil shale, phosphate, uranium, gold, diamonds, zeolites, nephrite jade, titaniferous sands, rare earth elements are other leasable solid minerals found in the Rock Springs resource area.

Saleable minerals

Sand and gravel aggregates mined in the planning area are often used for road construction and maintenance. Decorative and dimensional stone is generally used for commercial and residential construction in the region and beyond. Sand and gravel resources are found along drainage channels, particularly the Green River and its tributaries. Sand and gravel are used primarily for construction and road maintenance projects. Other saleable minerals include decorative stone (moss rock), dimension stone (flagstone), decorative boulders, and petrified wood are also present in the planning area. Moss rock and dimension stone are typically collected from one or more sandstones found in the planning area. Dimension stone is generally derived from calcareous or tuffaceous sandstones, limestones, or massive shales and siltstones that cleave on predictable planes. Petrified wood is typically collected from the Eden Valley and Blue Forest areas.

LIVESTOCK GRAZING MANAGEMENT

The planning area contains 79 livestock grazing allotments covering approximately 5.27 million acres and authorizes 304,259 animal unit months (AUMs) per year. However, in recent years, actual use has been less than 200,000 AUMs. Annual fluctuations in the authorized AUMs are the result of user demands, climatic conditions, and/or from the collection of monitoring information.

Currently, grazing permits/leases are offered and accepted with the understanding that resource conditions will be evaluated to determine if they conform to the Wyoming Land Health Standards approved by the Secretary of Interior on August 12, 1997. These standards are used to allow sustainable livestock grazing management to continue while protecting watersheds, riparian and upland ecosystems, and wildlife habitat. Water projects are the most numerous range improvement and are intended to improve livestock distribution without fragmenting habitat with fences. Most existing water developments were constructed in the 1960s and 1970s.

The majority of the allotment boundaries within the planning area have been fenced, with pasture division fences within some allotments. The major highways in this area have also been fenced. Since the release of the previous RMP in 1997, the following new range improvement projects have been constructed within the planning area: (37 fences), (11 reservoirs), (19 water wells), (21 water troughs), (7 stream improvements), and (24,539 acres of brush control). These projects were installed to benefit livestock that graze the forage, but many also benefit wildlife and generally promote improved rangeland health within the planning area.

There are a number of methods that livestock managers use to evaluate land health which can reveal trends in the composition of the plant community or productivity of a plant community. Rangeland monitoring occurs throughout the planning area as part of the land health assessment process. Rangeland monitoring information has been analyzed for all of the allotments in the planning area. Overall rangeland trend as related to livestock grazing, is static to upward. Many allotments are managed under grazing rotations and seasons of use designed to meet soil cover and desired plant species growth requirements. Where livestock grazing has been identified as a significant causal factor for not achieving land health standards, grazing use has been changed.

A number of activities make up the Bureau's livestock management program. These activities include livestock grazing management, vegetation treatments, and range improvements. Livestock management includes authorizing livestock grazing; designing and implementing grazing systems; converting types of livestock; abolishing stock trails and driveways; and adjusting season of use, distribution, kind, class, and number of livestock. Vegetation treatments for livestock management include the use of prescribed fire; chemical, mechanical, and biological treatments; and noxious and invasive weed control. Other activities for livestock management include supplemental feeding and herding of livestock. Range improvements include fence construction, maintenance, and modification (including exclosures and cattle guards), water developments (reservoirs, seeps, springs, pipelines, catchments, and wells), and instream structures.

Livestock grazing is managed to provide for protection or enhancement of all resource values. The Wyoming Standards for Healthy Rangelands are implemented when authorizing livestock grazing use and related activities in the RMP resource area. The current amounts, kinds, and seasons of livestock grazing use are authorized until monitoring indicates a grazing use adjustment is necessary, or that a class of livestock or season of use modification can be accommodated. Monitoring will include coordination, consultation, and negotiation with grazing permittees. Requests for changes in season-of-use or kind-of-livestock are considered on a case-by-case basis and reviewed to determine range suitability and to evaluate potential impacts to both riparian and upland vegetation and other land resource uses. Designated camping areas, wetland/riparian spring exclosures, sensitive plant species exclosures, some wildlife management areas, coal mines, and some oil and gas production facilities are closed to grazing.

RECREATION AND VISITOR SERVICES

The Bureau provides opportunities for outdoor recreation and nature-based tourism under the concept of multiple-use management. Types of recreational use include dispersed recreation and developed recreation. Dispersed recreation consists of activities of an unstructured type that are not confined to specific locations or dependent on developed recreation sites. Dispersed recreation occurs throughout the planning area over a wide range of ecosystem types, and includes sight-seeing, touring, backpacking, horseback riding, geocaching, hiking, off-highway vehicle (OHV) use, photography, wildlife viewing, fishing, other water related activities, hunting, and camping. The RSFO manages many developed recreation sites scattered throughout the RSFO, consisting of day use/picnic areas, campgrounds, interpretive sites, and historic site tourism. Developed recreation sites provide excellent opportunities and starting points for activities such as camping, hiking, backpacking, horseback riding, wildlife viewing, sightseeing, OHV touring, fishing, and hunting. Special recreational permits are issued to manage visitor use, protect natural and cultural resources, and achieve the goals and objectives of the recreation program.

TRANSPORTATION

The Bureau-managed transportation system is extensive and complements the public road system. The existing network of roads has been built and is maintained primarily by the oil and gas industry. The Rock Springs resource area provides for off-highway vehicle use while protecting natural resources, promoting public safety, and minimizing conflicts among the various users of public lands.

FORESTRY AND FOREST PRODUCTS

The Rock Springs resource area contains approximately 7,900 acres of commercial forestland. The conifer stands can be divided into two categories. The first category includes the north-facing, cooler slopes that are mostly occupied by the Engelmann spruce/subalpine fir complex (spruce-fir) with occasional Douglas-fir intermixed. This complex is dominated by subalpine fir. The second category includes the south, east, and west facing slopes which are occupied by lodgepole pine and the limber/white bark pine complex, as well as spruce-fir in the transition zone from north to east. Lodgepole pine is the most prevalent species in this complex. Aspen stands are also found throughout the resource area.

The large expanse of juniper acreage within the southern half of the planning area is currently receiving very little management activity. Some fuels treatment projects involve removal of juniper encroaching into sagebrush habitats. Only a few permits are sold annually for juniper firewood and Christmas trees. Reforestation is being accomplished by natural seeding and occasionally by planting containerized stock or direct seeding. At present, no timber stand improvements (e.g., thinning, treatments) are being conducted in the resource area other than through post/pole and Christmas tree sales. At the present level of harvesting for these products, the acreage treated is insignificant.

LANDS AND REALTY

The lands and realty program is designed to manage the underlying land base and their boundaries that hosts and supports all resources and management programs. The primary activities of the lands and realty program include: (1) land use authorizations (e.g., ROW, leases and permits); (2) land tenure adjustments (e.g., sales, exchanges, purchases); and (3) withdrawals, classifications, and other segregations. The Bureau works cooperatively to execute

the lands and realty program with federal agencies, the State of Wyoming, counties and cities, and other public and private landholders.

RENEWABLE ENERGY

The Bureau manages vast stretches of public lands that have the potential to make significant contributions to the nation's renewable energy portfolio. By working with local communities, state regulators, industry, and other federal agencies, the Department of the Interior and the Bureau provides sites for environmentally sound development of renewable energy on public lands. This Bureau will identify areas within the planning area that are open to both wind and solar renewable energy development.