
CHAPTER 2—ALTERNATIVES

2.1 INTRODUCTION

This chapter describes five alternatives for management of the planning area. Alternative A (No Action Alternative) reflects current management and includes direction contained in the six Bureau of Land Management (BLM) Resource Management Plans (RMP) and three U.S. Forest Service (Forest Service) Land and Resource Management Plans (LRMP) that is associated with the protection of Greater Sage-Grouse and its habitat. Alternatives were developed based on National Greater Sage-Grouse policy, public comments, Wyoming statewide Greater Sage-Grouse management, the Conservation Objectives Team (COT) Report, and the National Technical Team (NTT) Conservation Measures Report (IM-2012-044) to establish a framework for measuring the impacts that might result from management decisions. The alternatives represent reasonable approaches to managing Greater Sage-Grouse habitat and activities consistent with law, regulation, and policy.

Section 2.2 presents an overview of the alternatives development process. Management guidance common to all alternatives is presented in Section 2.3. Section 2.4 contains summaries of each alternative. Section 2.5 presents the goals and objectives for each alternative. Section 2.6 presents a detailed description of each alternative, including management actions to be implemented by the BLM and Forest Service. Section 2.6 also includes acreage tables (Tables 2-2, 2-3, and 2-4) that present the geographic implications associated with each alternative. The acres presented in these tables are the result of analyzing only those management actions included in Table 2-1 as they relate sage-grouse habitat management. It is important to note the management actions in Alternative A reflect closed areas (oil and gas, wind and right-of-way [ROW]) for any reason. As a result, the existing RMPs and LRMPs amended by this LUP amendment include other land use restrictions that are not analyzed in this draft EIS and are therefore not included in the acreage tables below. Section 2.7 presents a summary comparison of impacts from management actions proposed for the five alternatives addressed in Chapter 4.

2.2 DEVELOPMENT OF ALTERNATIVES

2.2.1 Alternatives Development Process

The BLM and Forest Service complied with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) implementing regulations at 40 Code of Federal Regulations (CFR) §1500 in the development of alternatives for this draft EIS, including seeking public input (scoping) and analyzing a reasonable range of alternatives. In developing alternatives, the BLM and Forest Service also took into consideration management options for planning decisions in the RMPs and LRMPs (hereafter, Land Use Plan [LUP]) for the planning area.

The BLM and Forest Service LUPs served as the foundation for the No Action Alternative. In some cases, the decisions in the LUPs were found to be sufficient for Greater Sage-Grouse protection; in these instances, there was limited need to develop alternative management prescriptions. For a few of the actions, management prescriptions are the same across all action alternatives. Where these actions are the same across all of the alternatives, they have been included in the alternative tables to provide a complete picture of the management prescriptions for the planning area.

Public input received during the scoping process was considered to ensure that all issues and concerns were addressed, as appropriate, in developing the alternatives. The scoping process and opportunities for future public and agency involvement are summarized in Chapter 5.

Development of the alternatives began with BLM Wyoming's Instruction Memorandum (IM) 2010-012 and IM 2012-019 and BLM Washington Office (WO) IM 2012-044 for Wyoming statewide and national management of Greater Sage-Grouse. A "Citizens Proposed Conservation" alternative was submitted during the second scoping period which was incorporated as a unique alternative. Alternative B is based on the National Technical Team Greater Sage-Grouse Conservation Measures (IM- 2012-044) and Alternative C is based upon comments received as a result of the December 2011 Notice of Intent (NOI). Cooperating agencies reviewed and provided input into the development of the draft alternatives prior to development and selection of the Preferred Alternative. Among all the alternatives, Alternative E, the Preferred Alternative, was developed last. The BLM and Forest Service are required to identify a preferred alternative in the Draft LUP/EIS, as per 40 CFR 1502.14. Identification of the preferred alternative is not a final agency decision, but instead an indication of the agency's preliminary preference that reflects the best combination of decisions to achieve BLM and Forest Service goals and policies, meets the purpose and need, addresses the key planning issues, and considers the recommendations of cooperating agencies and BLM specialists. The BLM's and Forest Service's preferred alternative is Alternative E.

Many of the decisions from the existing LUPs have been implemented. In some cases, implementation of these decisions established valid existing rights or other obligations that are important considerations in preparing the LUP amendments. For example, many of the oil and gas resources in the planning area are leased. The presence of these valid existing rights influences, and sometimes limits, management choices. Specific to the oil and gas program, the alternatives in this draft EIS would apply to LUPs and activity level decisions that are not yet implemented by addressing the availability of lands for future oil and gas leasing, potential lease stipulations, and additional mitigation to be considered and applied during the Application for Permit to Drill (APD) process.

2.2.2 Alternatives and Management Options Considered But Eliminated From Detailed Analysis

The following alternatives and management options were considered as possible methods of resolving Greater Sage-Grouse management issues and conflicts, but were eliminated from detailed analysis because they were unreasonable or not practical or feasible as a result of technical, legal or policy factors; were not found to be necessary to achieve the intended result, or did not meet the purpose and need for the planning effort.

Alternatives that Include Stipulations for Protection of Sage-Grouse Habitat from Oil Shale Resources

Comments were received during the public scoping process that suggested the BLM should either adopt the permitting processes guidelines and stipulations in the Wyoming Executive Order (EO) 2011-05 or develop some other mitigation strategies for the protection of Sage-Grouse habitat from oil shale development. This is an issue that has been previously raised in the context of both the 2008 and the 2013 oil shale and tar sands planning initiatives. Both the 2008 and 2013 Oil Shale and Tar Sands Programmatic Environmental Impact Statements (PEIS) limit the scope of the decisions supported by the development of the PEIS to an allocation decision. (Please see Chapter 1 and Chapter 2, Section 2.5, page 2-80 of the Proposed LUP for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming and Final Programmatic Environmental Impact Statement). This land use allocation does not authorize any future lease or development proposal. The current experimental state of the oil shale and tar sands industries does not allow the PEIS to include sufficient specific information or cumulative impact analyses to support future leasing decisions within these allocated lands. Accordingly, both the 2008 and 2013 Oil Shale and Tar Sands PEISs make clear that prior to any actual oil shale leasing, additional NEPA, and other applicable

analyses will be required. Those analyses could result in decisions not to lease in specific areas or to lease in particular areas with stipulations, such as stipulations precluding surface disturbance.

If and when applications to lease oil shale resources are received and accepted by the Secretary, the BLM will conduct these additional required analyses, including consideration of direct, indirect, and cumulative effects, reasonable alternatives, and possible mitigation measures, as well as an assessment of the level of development that may be anticipated. On the basis of that analysis of future lease application(s), the BLM will establish general lease stipulations and best management practices and amend applicable land use plans, if necessary. BLM managers retain authority to approve, modify, or deny future lease and development proposals based on consideration of numerous factors, including, but not limited to, the specific technology proposed for use, the anticipated impacts on natural and cultural resources, economic viability, and community concerns. As part of the NEPA review process for any future oil shale lease, the BLM will consider the processes, guidelines, and stipulations detailed in EO 2011-05. After a lease is authorized, actual development will require additional analysis to address the site-specific conditions of the proposed development and to develop mitigating measures.

This lack of specific information regarding the specific technological requirements and environmental consequences that might be associated with the development of oil shale resources on the public lands also means that, with respect to this Sage-Grouse planning effort, it would be premature for the BLM to consider specific protective stipulations. At this point, there is insufficient analytical basis for such consideration. For this reason, the BLM is not carrying forward for more detailed analysis in this EIS consideration of protective stipulations to be adopted for oil shale development.

Closure of Sage-Grouse Habitat to Off-Highway Vehicle Use

The BLM and Forest Service identified, but did not analyze in detail, an alternative to designate new area closures for off-highway vehicles within sage-grouse priority/core and general habitat areas. The following provides the rationale for why OHV area closures were eliminated from detailed study:

- There were no internal or external scoping comments submitted that suggested areas closures were an issue for detailed analysis during the public scoping period.
- Many of the BLM field offices that include sage-grouse priority/core and general habitat in the Great Basin and Rocky Mountain Regions have not initiated or completed route inventories; therefore, the BLM is not currently aware of the number of existing routes, or what the purpose of each of those routes may be. Without this detailed information, this large-scale programmatic EIS cannot propose area OHV closures because the analysis would be inconclusive. In addition, there is insufficient information to analyze the effects of these routes on Greater Sage-Grouse, resource allocations, uses, and the public.
- The appropriate planning level to evaluate closed OHV areas is during field office land use plan revisions or amendments, not for this multi-state programmatic plan amendment effort. During the field office plan revisions/amendments process, travel and transportation planning (areas open, closed and limited to OHVs) would be one of the key decisions being made for the local planning effort, and appropriate inventories would be conducted or local level information would be available in order to make site-specific decisions related to area closures. OHV decisions at the BLM field office/Forest Service district scale would take all resource conflicts and uses into consideration, not just sage-grouse. The massive scale of this programmatic EIS amendment is not conducive to providing detailed analysis concerning this decision.
- Field office plan revisions will take the initial "limited to existing roads" the sub-regional effort will likely identify, and step that down to RMP-level transportation planning during their

revisions at a scale where the data is available to assess the nature of the designations and closures and multiple resource needs, not only sage-grouse.

- There are some OHV closures already in place based on existing field office land use plans. Some of these closures intersect sage-grouse priority/core and general habitat areas and would remain constant under all alternatives in this EIS/amendment.
- Route inventories in sage-grouse priority/core and general habitat are currently underway based on coordinated efforts between the BLM and U.S. Fish and Wildlife Service (USFWS) staff. Through these efforts, the agencies have determined where the greatest threats have been identified in Greater Sage-Grouse populations and thus a priority for inventory.
- Once the inventories are completed, the BLM will initiate travel and transportation management plans, which will be subject to a NEPA analysis and will include public involvement.
- USDA Forest Service, Travel Management; Designated Routes and Areas for Motor Vehicle Use; Final Rule – 36 CFR Parts 212, 251, 261, and 295, Effective December 9, 2005. The final rule will prohibit the use of motor vehicles off the designated system, as well as use of motor vehicles on routes and in areas that is not consistent with the designations. This rule also includes seasonal closures and motorized vehicle classifications. The Travel Rule defines a Designated Road as a National Forest System Road.

U.S. Fish and Wildlife Listing with Associated Conservation Measures

Recommendations to analyze the effects of a USFWS listing decision were provided. Inadequacy of regulatory mechanisms was identified as one of the listing factors for Greater Sage-Grouse in the USFWS finding on the petition to list Greater Sage-Grouse. The USFWS identified the principal regulatory mechanism for the BLM and Forest Service as conservation measures in land use plans. In response to the USFWS findings, as well as the BLM's and Forest Service's requirement to manage sensitive species, the BLM and Forest Service are preparing plan amendments with an associated EIS to incorporate conservation measures in land use plans for Greater Sage-Grouse. Because the purpose of the plan amendments is to identify and incorporate appropriate conservation measures in land use plans to conserve, enhance and/or restore Greater Sage-Grouse habitat by reducing, eliminating, or minimizing threats to that habitat, the alternatives in this EIS, therefore, focus on those conservation measures that can be incorporated into the land use plans. Although the potential listing of Greater Sage-Grouse would also include conservation measures identified by the USFWS, those conservation measures are not known at this time. Therefore, an alternative that includes USFWS-listing with associated conservation measures for Greater Sage-Grouse was not analyzed in detail. Therefore a USFWS listing decision is not analyzed in detail, because such an alternative would not meet the purpose and need, and therefore associated analysis would be outside the scope of this EIS.

Designation of All Sage-grouse General Habitat as Areas of Critical Environmental Concern or Forest Service Special Interest Areas

The BLM/Forest Service identified, but did not analyze in detail, an alternative to designate all Greater Sage-Grouse general habitat (Map 3-18) as an Area of Critical Environmental Concern (ACEC) or Special Interest Area (SIA). These areas did not meet the relevance and importance criteria necessary to be considered for ACEC designation as determined by BLM regulation, nor did they meet designation criteria as determined by Forest Service regulation. However, the areas found to meet relevance and importance criteria are analyzed in detail in Alternative B and Alternative C. The sage-grouse priority habitat areas met relevance and importance due to their size and proposed restrictions on oil and gas and wind energy development. Other sensitive resources would benefit from this ACEC designation. The priority habitat areas also contain other sensitive wildlife habitats including big game crucial winter

range, parturition habitats, and migration corridors. The sage-steppe habitats in the proposed priority habitat area is the most intact stands of habitat remaining for sagebrush obligate species, many of which are considered BLM sensitive, such as the pygmy rabbit, brewer's sparrow, the loggerhead shrike, and the sage sparrow to name a few. There are also several areas of special status plant species within the sage-steppe core habitat areas. The fragmentation of much of the habitats outside of priority habitat in addition to continuous drought cycles have resulted in limitations and conflict for resources in the remaining habitats, making the intact priority habitats that much more important.

The sage-grouse general habitat areas did not meet the ACEC importance criteria due to the cumulative buildup of anthropomorphic disturbances over time that has reduced habitat effectiveness to the point that the Greater Sage-Grouse has been identified as eligible for listing under the Endangered Species Act. The combination of disturbances industrial and agricultural in general habitats negates the benefits of the added protection needed in priority habitat and may inadvertently increase fragmentation of priority habitat, as the complexities of overlapping resource values and projects of national interest intersect. The general habitats within the project area in most cases have intensive mineral development and are held by production. The added value of managing the general habitat as an ACEC would not be fully realized due to the valid existing rights encumbering these habitats, which is largely why these areas were not included in the core-area strategy by the State of Wyoming.

2.3 MANAGEMENT GUIDANCE COMMON TO ALL ACTION ALTERNATIVES

This section describes proposed management guidance that would apply to all action alternatives (Alternatives B through E). As conditions, law, and policy change over time or new data are collected, the LUPs would continue to be updated through maintenance actions or amendments, as appropriate, to ensure management decisions reflect those changes. An implementation plan will be developed after approval of the Record of Decision (ROD) for the LUPs. The implementation plan will address monitoring, mitigation, projects, and activities to achieve the goals and objectives of the LUPs.

2.3.1 Monitoring

BLM's and Forest Service's planning regulations, specifically Monitoring and Evaluation 43 CFR 1610.4-9 (Monitoring and Evaluation) and 36 CFR 219.12 (Monitoring), respectively, require that land use plans establish intervals and standards for monitoring, based on the sensitivity of the resource decisions. Forest Service's planning regulations (specifically FSM 1926.7 Monitoring and Evaluation and 36 CFR 219.12(k) of the planning regulations in effect before November 9, 2000) require monitoring of the LRMP and projects and activities to determine how well objectives have been met and how closely management standards and guidelines have been applied. Land use plan and LRMP monitoring is conducted at three levels: implementation, effectiveness, and validation. For Greater Sage-Grouse, these types of monitoring are also described in the criteria found in the USFWS and National Marine Fisheries Service (NMFS) Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE) (50 CFR Vol. 68, No. 60). One of the PECE criteria evaluates whether provisions for monitoring and reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided.

A guiding principle in BLM National Sage-grouse Conservation Strategy (2004) is that "the Bureau is committed to sage-grouse and sagebrush conservation and will continue to adjust and adapt our National Sage-grouse Strategy as new information, science and monitoring results evaluate effectiveness over time." In keeping with the WAFWA Sage-grouse Comprehensive Conservation Strategy (Stiver 2006)

and the Greater Sage-Grouse Conservation Objectives: Final Report (USFWS 2013), the BLM and Forest Service will monitor implementation and effectiveness of conservation measures in sage-grouse habitats.

On March 5, 2010, the 12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered were posted as a Federal Register notice (75 FR 13910 14014). This notice stated: "...the information collected by the BLM could not be used to make broad generalizations about the status of rangelands and management actions. There was a lack of consistency across the range in how questions were interpreted and answered for the data call, which limited our ability to use the results to understand habitat conditions for sage-grouse on BLM lands." The notice also stated: "We do not have information regarding the current land health status of National Forest System Lands in relation to the conservation needs of Greater Sage-Grouse; thus, we cannot assess whether existing conditions adequately meet the species habitat needs." Standardization of monitoring methods and implementation of a defensible monitoring approach (within and across jurisdictions) will resolve this situation. The BLM, Forest Service, and other conservation partners will use the resulting information to guide implementation of conservation activities.

Monitoring strategies for sage-grouse habitat and populations must be collaborative, as habitat occurs across jurisdictional boundaries (52% BLM, 31% private, 8% Forest Service, 5% state, 4% tribal and other Federal; 75 FR 13910), and because state fish and wildlife agencies have primary responsibility for population level management of wildlife, including population monitoring. Therefore, population efforts will continue to be conducted in partnership with state fish and wildlife agencies. The BLM and Forest Service are currently in the process of finalizing a Monitoring Framework which will be included in the Proposed LUP Amendments/Final EIS. This framework will describe the process that the BLM and Forest Service will use to monitor implementation and effectiveness of LUP decisions. The Monitoring Framework will include methods, data standards, and intervals of monitoring at broad and mid scales; consistent indicators to measure and metric descriptions for each of the scales (see Habitat Assessment Framework (HAF) and Assessment, Inventory and Monitoring (AIM) core indicators); analysis and reporting methods; and the incorporation of monitoring results into adaptive management. The need for fine and site-scale specific habitat monitoring may vary by area depending on existing conditions, habitat variability, threats, and land health. Indicators at the fine and site scales will be consistent with the HAF; however, the values for the indicators could be adjusted for regional conditions. The major components of the Monitoring Framework can be found in Appendix D of this draft EIS.

More specifically, the framework will discuss how the BLM and Forest Service will monitor and track implementation and effectiveness of planning decisions (e.g., tracking of waivers, modifications, site level actions). The two agencies will monitor the effectiveness of LUP decisions in meeting management and conservation objectives. Effectiveness monitoring will include monitoring disturbance in habitats as well as landscape habitat attributes. To monitor habitats, the BLM and Forest Service will measure and track attributes of occupied habitat, priority habitat, and general habitat at the broad scale, and attributes of habitat availability, patch size, connectivity, linkage areas, edge effect, and anthropogenic disturbances at the mid-scale. Disturbance monitoring will measure and track changes in the amount of sagebrush in the landscape and changes in the anthropogenic footprint including the change in the density of energy development. The framework will also include methodology for analysis and reporting for Field Offices/Stater/Ranger Districts/BLM Districts/Forests/Forest Service Regions including geospatial and tabular data for disturbance mapping (e.g., geospatial footprint of new permitted disturbances) and effectiveness of management actions. The monitoring data will provide the indicator estimates for adaptive management. The BLM and the Forest Service will adjust management decisions through an adaptive management process.

2.3.2 Adaptive Management

Adaptive management is a decision process that promotes flexible resource management decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes advances scientific understanding and helps with adjusting resource management directions as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a ‘trial and error’ process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. On February 1, 2008, the Department of the Interior (DOI) published its Adaptive Management Implementation Policy (522 DM 1). On January 31, 2006, the Forest Service published its Adaptive Planning Process in Forest Service Handbook 1901.12_20. The adaptive management strategy presented within this draft EIS complies with these policies.

In relation to the BLM’s/Forest Service’s National Greater Sage-Grouse Planning Strategy, adaptive management will help identify if sage-grouse conservation measures presented in this draft EIS contain the needed level of certainty for effectiveness. If principles of adaptive management are incorporated into the conservation measure in the plan (to ameliorate threats to a species), there is a greater likelihood that a conservation measure or plan will be effective in reducing threats to that species. The following provides the BLM/Forest Service adaptive management strategy for the LUP amendments.

Adaptive Management and Monitoring

The BLM and Forest Service will develop an adaptive management plan to provide certainty that unintended negative impacts to sage-grouse will be addressed before consequences become severe or irreversible and to provide regulatory certainty to the USFWS that appropriate action will be taken by the BLM and Forest Service.

Wyoming BLM and Forest Service will coordinate with the State of Wyoming in implementation planning to develop a statewide adaptive management plan, including mitigation where appropriate, and a framework to evaluate causal factors. The adaptive management plan will identify adaptive management hard and soft triggers; indicators to be measured; and appropriate mitigation, restoration, and reclamation actions, including targets and benchmarks for responses. The plan will include both short-term and long-term monitoring. The adaptive management plan will guide the development of project level adaptive management strategies.

This adaptive management plan will:

- Identify science based soft and hard adaptive management triggers applicable to each population or subpopulation within the planning area
- Address how the multiple scale data from the Monitoring Framework Plan (Appendix D) will be used to gauge when adaptive management triggers are met
- Charter an adaptive management working group to assist with responding to soft adaptive management triggers.

Adaptive Management Triggers

Adaptive management triggers are essential for identifying when potential management changes are needed in order to continue meeting sage-grouse conservation objectives. The BLM/Forest Service will use a continuum of trigger points (soft and hard triggers), which will enhance BLM’s and Forest Service’s

ability to effectively manage sage-grouse habitat. The soft and hard triggers that will be delineated in the adaptive management plan will (at a minimum):

- Be based upon the best available science
- Tied to the populations/demographics
- Take into account the importance of various seasonal habitat types
- Not be limited to a single time “window.”

Soft triggers indicate when the BLM/Forest Service will consider adjustments to resources or resource use management. An adaptive management working group will help identify the causal factors as to what prompted the soft adaptive management trigger. The group will also provide recommendations to the appropriate BLM/Forest Service authorizing official (decision maker) regarding the applicable management response to address this trigger (e.g. effective mitigation, restoration, reclamation, and in some instances, a land use plan amendment or revision). When organizing the adaptive management working group, the BLM and Forest Service will invite participation from BLM, Forest Service, USFWS, local governments, and applicable state fish and game agencies.

Hard triggers indicate when the BLM/Forest Service will take immediate action to stop the continued deviation from conservation objectives. These actions could include one or more of the following (which may require subsequent NEPA analysis):

- Temporary closures (as directed under BLM Instruction Memorandum No. 2013-035)
- Immediate implementation of interim management policies and procedures through the BLM/Forest Service directives system
- Initiation of a new LUP Amendment to consider changes to the existing LUP decisions.

2.3.3 Mitigation

Mitigation strategies, which take into account the mitigation hierarchy (avoid, minimize, restore, offset), are an important tool for ensuring the BLM and Forest Service meet their Greater Sage-Grouse resource objectives while continuing to honor their multiple-use missions. The BLM’s and Forest Service’s priority is to mitigate impacts to an acceptable level onsite, to the extent practical, through avoidance (not taking a certain action or parts of an action), minimization (limiting the degree or magnitude of the action and its implementation), rectification (repairing, rehabilitating, or restoring the affected environment), or reduction of impacts over time (preservation and maintenance operations during the life of the action). While mitigating impacts for proposed projects to an acceptable level onsite is typically analyzed and determined through site-specific, implementation-level NEPA documents and their commensurate decision documents, the analysis and mitigation for project level activities will be tiered to the analysis and mitigation proposed throughout each of the action alternatives in this Amendment.

For those impacts that cannot be sufficiently avoided or minimized onsite, the BLM/Forest Service must ensure implementation of effective measures to offset (or compensate for) such impacts and to maintain or improve the viability of sage-grouse habitat and populations over time, as described in the Service’s Conservation Objectives Team Report. Regional mitigation may be a necessary component for many large renewable and nonrenewable energy development projects as well as many smaller projects with cumulative effects on the Greater Sage-Grouse and its habitat.

Any mitigation strategy on National Forest System Lands will follow established regulation and policy in the Forest Service Manual and Handbook. Any regional mitigation strategy for BLM-managed lands will comply with BLM’s Regional Mitigation Manual Section (MS) 1794, which provides policies, procedures, and instructions for:

- Adopting a regional approach to planning and implementing mitigation, including pre-identifying potential mitigation sites, projects, and measures
- Identifying the type of mitigation that is needed to compensate for impacts to resources or values caused by a land use authorization.

It is important to note that any mitigation strategy must include the cooperation and coordination of appropriate and pertinent federal, state, and local land and resource management agencies across the landscape. The final strategy adopted and implemented within a landscape will be dependent on the unique resources and values of the regional landscape and the mitigation strategies and resources contributed by the regional partners. It is important to acknowledge that the state government working with the BLM/Forest Service as a Cooperating Agency on this land use plan amendment may have already completed, or is currently working on, statewide mitigation strategies. The BLM/Forest Service will continue to work with and support those state government efforts.

The BLM and Forest Service will establish a Mitigation Implementation Team for each of the six WAFWA Management Zones in the West, following the completion of each of the 15 sub-regional EISs that are associated with the National Greater Sage-Grouse Planning Strategy. The planning area presented in this sub-regional EIS lies within WAFWA Management Zones I and II. The teams are responsible for developing a Mitigation Strategy (MS) consistent with BLM MS 1794, as appropriate. The teams will coordinate recommended mitigation strategies between LUP planning areas, WAFWA management zones, and local and state jurisdictions for mitigation consistency, where appropriate.

These implementation teams will be responsible for implementing BLM MS 1794, and making recommendations regarding the following items related to compensatory mitigation:

- A structure for determining appropriate mitigation, including impact (debit) and benefit (credit) calculation methods, mitigation ratios, mitigation “currency” (i.e., numbers of birds, acres, etc.), location, and performance standards options by considering local and regional, mitigation options
- How to resolve mitigation oriented discrepancies that arise within the WAFWA Management Zone or between Zones
- The application and the holding and disposition of any mitigation funds
- The most appropriate mitigation for impacts from a given land use authorization and type of seasonal habitat impacted
- Prioritization of potential mitigation sites, projects, and measures, as guided by conservation strategies (e.g., PACs, priority habitat areas)
- Reviewing mitigation monitoring reports and analyzing and reporting on project effectiveness, corrective measures/adaptive management (where required), and cumulative effects of mitigation actions at the PAC and the WAFWA zone.
- These WAFWA Management Zone Implementation Teams will function as interdisciplinary teams (IDT) composed of BLM, Forest Service, USFWS and state fish and game agencies. The Mitigation Implementation Team will make recommendations to the BLM Authorized Officer (AO). If the recommendations are rejected for any reason, the Mitigation Implementation Team will be re-convened to develop additional recommendations.

2.4 SUMMARIES OF THE ALTERNATIVES

2.4.1 Alternative A (No Action Alternative—Continuation of Existing Management)

Alternative A (No Action Alternative) is defined as a continuation of the present course of management for sage-grouse within each of the BLM and Forest Service offices. Ongoing programs initiated under existing legislation, regulations and the existing LUPs would continue, even as new plans are developed or new planning efforts are being conducted with the planning area. Alternative A describes a subset of the current resource and land use management direction in the planning area that is proposed to be revised or supplemented by some or all of the action alternatives. This management may differ between BLM and Forest Service offices. Alternative A and its impact analysis represent the baseline to which the other alternatives and their associated analyses are compared. Alternative A uses the terms “Greater Sage-Grouse core habitat” or “core areas” as described in WY EO 2011-5 and defined in this document’s Glossary as habitat that is most important for Greater Sage-Grouse. Management actions proposed under the Alternative A are presented in Table 2-1 and reflected in Table 2-2 (land use restrictions) and Tables 2-3 and 2-4 (oil and gas leasing stipulations).

2.4.2 Alternative B

Alternative B is based on the conservation measures developed by the NTT planning effort in IM-2012-044. As directed in the IM, the conservation measures developed by the NTT must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all BLM state and field offices that contain occupied Greater Sage-Grouse habitat. Under this alternative, a surface disturbance cap of 3% per 640 acres is considered within sage-grouse priority habitat. In areas where the disturbance cap has been met by the project proponent, the BLM/Forest Service should consider opportunities for reclamation or removal of surface disturbing features that are no longer in use in order to reduce the current disturbance before further projects are permitted. This alternative considers incorporating a light grazing strategy, utilizing a 20-30% forage allocation for livestock allotments not meeting standards due to livestock grazing in sage-grouse priority habitat. Alternative B uses the term “Greater Sage-Grouse priority habitat” as described in IM 2012-044 and defined in this document’s Glossary. Priority habitat is the same as core habitat and the terms are used interchangeably among the alternatives, depending on the source of the Alternatives. Management actions proposed under Alternative B are presented in Table 2-1 and reflected in Table 2-2 (land use restrictions) and Tables 2-3 and 2-4 (oil and gas leasing stipulations). Alternative B is not strictly based on the conservation measures developed by the NTT planning effort. In the *Western Watersheds Project v. U.S. Department of Interior*, the Court remanded the Pinedale RMP decision to the BLM, without vacating the RMP, to allow the BLM to remedy the FLPMA and NEPA defects identified by the Court with respect to the Pinedale RMP and EIS. These remedies can be found in Alternative B.

2.4.3 Alternative C

Alternative C is based on the citizen groups recommended alternative. This alternative emphasizes improvement and protection of habitat for Greater Sage-Grouse and is applied to all occupied Greater Sage-Grouse habitat. Alternative C would limit commodity development in areas of occupied Greater Sage-Grouse habitat, and would close or designate portions of the planning area to some land uses. Under this alternative, a surface disturbance cap of 3% per 640 acres is considered within sage-grouse priority habitat. This alternative considers closing priority sage-grouse habitat to livestock grazing. Alternative C uses the term “Greater Sage-Grouse priority habitat” as described in IM 2012-044 and defined in this document’s Glossary. Priority habitat is the same as core habitat and the terms are used interchangeably among the alternatives, depending on the source of the Alternatives. Management actions proposed under

Alternative C are presented in Table 2-1 and reflected in Table 2-2 (land use restrictions) and Tables 2-3 and 2-4 (oil and gas leasing stipulations).

2.4.4 Alternative D

Alternative D provides opportunities to use and develop the planning area while providing protection of Greater Sage-Grouse habitat based on scoping comments and input from Cooperating Agencies involved in the alternatives development process. This alternative increases the potential for development and resource use, with reduced Greater Sage-Grouse habitat protections. Protective measure would be applied to Greater Sage-Grouse habitat. Under this alternative, a surface disturbance cap of 9% per 640 acres is considered within sage-grouse core habitat. Alternative D uses the terms “Greater Sage-Grouse core habitat” or “core areas” as described in WY EO 2011-5 and defined in this document’s Glossary. Management actions proposed under Alternative D are presented in Table 2-1 and reflected in Table 2-2 (land use restrictions) and Tables 2-3 and 2-4 (oil and gas leasing stipulations).

2.4.5 Alternative E (Preferred Alternative)

Alternative E incorporates the guidance from BLM IM WY-2010-012, the Wyoming Governor’s Executive Order (WY EO 2011-05) and additional management based on the NTT recommendations. This alternative emphasizes management of sage-grouse seasonal habitats and maintaining habitat connectivity to support population objectives set by the Wyoming Game and Fish Department (WGFD). This guidance is consistent with guidelines provided in the Governor’s Sage-Grouse Implementation Team’s Core Population Area strategy and the Governor’s Executive Order (WY EO 2011-05). Under this alternative, a surface disturbance cap of 5% per 640 acres is considered within sage-grouse core habitat. Alternative E uses the terms “Greater Sage-Grouse core habitat” or “core areas” as well as “priority habitat” if the management action is the same as Alternatives B or C. Management actions proposed under Alternative E are presented in Table 2-1 and reflected in Table 2-2 (land use restrictions) and Tables 2-3 and 2-4 (oil and gas leasing stipulations).

2.5 MANAGEMENT GOALS AND OBJECTIVES

2.5.1 Management Goals for Alternatives A, D and E

1. Conserve, recover, and enhance sage-grouse habitat on a landscape scale consistent with local, state, and federal management plans and policies, as practical, while providing for multiple use of BLM-administered lands and National Forest System lands.
2. Maintain and/or increase sage-grouse abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other state, local, industry, permittee and conservation partners.

2.5.2 Management Goal for Alternative B

1. Maintain and/or increase sage-grouse abundance and distribution by conserving, enhancing, or restoring the sagebrush ecosystem upon which populations depend in cooperation with other conservation partners.

2.5.3 Management Goal for Alternative C

1. Maintain and increase current sage-grouse abundance and distribution by conserving, enhancing, or restoring the sagebrush ecosystem.

2.5.4 Management Objectives Common to All Action Alternatives

1. In cooperation with State of Wyoming and its agencies, local governments, private landowners, local sage-grouse working groups, partners and stakeholders, develop site-specific conservation strategies to maintain or enhance sage-grouse habitats and habitat connectivity.
2. Enhance quality/suitable habitat to support the expansion of sage-grouse populations on federally-administered lands within the planning areas.
3. Manage sage-grouse seasonal habitats and maintain habitat connectivity to support population objectives set by the State of Wyoming in cooperation with the agencies.
4. Identify and prioritize opportunities for habitat enhancement and conservation within sage-grouse core habitat areas based on threats and the ability to manage sage-grouse habitat.
5. Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse.
6. Develop specific objectives to conserve, enhance or restore sage-grouse priority habitat based on Ecological Site Descriptions (ESD) (Forest Service may use other methods) and BLM land health evaluations (including within wetland and riparian areas) taking into account site history (historic treatments or habitat manipulations) that have changed the soil chemistry possibly altering the ESD. If an effective grazing system that meets sage-grouse habitat requirements is not already in place, analyze at least one alternative that conserves, restores, or enhances sage-grouse habitat in the NEPA document prepared for grazing management (Doherty et al. 2011b, Williams et al. 2011).
7. Establish measurable objectives related to sage-grouse habitat from baseline monitoring data, ESDs (Forest Service may use other methods), or land health assessments/evaluations.
8. Manage for vegetation composition and structure consistent with ecological site potential (Forest Service may use other methods) to achieve sage-grouse seasonal habitat objectives.
9. Incorporate available site information collected using the Sage-Grouse Habitat Assessment Framework or similar methods to evaluate existing resource conditions and to develop any necessary resource solutions in cooperation with State of Wyoming and its agencies, the local governments, private landowners, project proponents, partners, and stakeholders.
10. Incorporate management practices that will provide for maintenance and/or enhancement of sage-grouse habitats, including specific attention to maintenance of desired understories of sagebrush plant communities. When developing objectives for residual cover and species diversity, identify the ecological site types within the planning area and refer to the appropriate ESDs (Forest Service may use other methods).
11. In determining appropriate management actions that will be considered, refer to the document, "Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat" (Cagney et al. 2010) for guidance.

2.5.5 Management Objectives for Alternative B

1. Protect priority sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse.

2. Manage wild horse and burro population levels within established Appropriate Management Levels (AML).
3. Prioritize wild horse and burro gathers in sage-grouse priority habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.
4. Write specific land use plan objectives for vegetation that connects habitats and creates patterns that benefit sage-grouse. Write specific vegetation management objectives relative to invasive annual grass spread and woody plant removal where these are of concern in sage-grouse habitat. Consider management objectives in buffers around intact priority habitats that detect and rapidly respond to invasions in the buffer zones.

2.5.6 Management Sub-Objectives for Alternative B

1. Designate priority sage-grouse habitats for each WAFWA management zone (Stiver et al. 2006) across the current geographic range of sage-grouse that are large enough to stabilize populations in the short term and enhance populations over the long term.
2. To maintain or increase current populations, manage or restore priority areas so that at least 70% of the land cover provides adequate sagebrush habitat to meet sage-grouse needs.
3. Develop quantifiable habitat and population objectives with WAFWA and other conservation partners at the management zone and/or other appropriate scales. Develop a monitoring and adaptive management strategy to track whether these objectives are being met, and allow for revisions to management approaches if they are not.
4. An additional objective will be designated for the priority area to prioritize and reclaim/restore anthropogenic disturbances so that 3% or less of the total priority habitat area is disturbed within 10 years.
5. Quantify and delineate general habitat for capability to provide connectivity among priority areas (Knick and Hanser 2011).
6. Conserve, enhance, or restore sage-grouse habitat and connectivity (Knick and Hanser 2011) to promote movement and genetic diversity, with emphasis on those habitats occupied by sage-grouse.
7. Enhance general sage-grouse habitat such that population declines in one area are replaced elsewhere within the habitat.
8. Assess general sage-grouse habitats to determine potential to replace lost priority habitat caused by perturbations and/or disturbances and provide connectivity (Knick and Hanser 2011) between priority areas. These habitats should be given some priority over other general sage-grouse habitats that provide marginal or substandard sage-grouse habitat.
9. Restore historical habitat functionality to support sage-grouse populations guided by objectives to maintain or enhance connectivity. Total area and locations will be determined at the Land Use Plan level.

2.5.7 Management Objectives for Alternative C

1. Restore and maintain sagebrush steppe to its ecological potential in occupied sage-grouse habitat.

2. Establish a system of sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.
3. Develop and implement methods for prioritizing and restoring sagebrush steppe invaded by non-native plants.
4. Encourage partners to monitor effects of retiring grazing permits in sage-grouse habitat.
5. Any oil, gas, or geothermal activity will be conducted to maximize avoidance of impacts, based on evolving scientific knowledge of impacts.
6. Manage wild horse and burro population levels within established Appropriate Management Levels (AML).
7. Prioritize wild horse gathers in sage-grouse priority habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.
8. Establish a system of sagebrush reserves to anchor recovery efforts by protecting the highest quality habitats.

2.5.8 Management Objectives for Alternatives D and E

1. Identify core/priority, general, and connectivity habitats for each WAFWA MZ across the current geographic range of Greater Sage-Grouse that are large enough to stabilize populations in the short term and enhance populations over the long term. Greater Sage-Grouse habitat in this planning area overlaps 2 WAFWA MZs: (1) MZ I-Great Plains and (2) MZ II-Wyoming Basin.
2. Protect core/priority, general, and connectivity habitats from anthropogenic disturbance that will reduce distribution or abundance of Greater Sage-Grouse.

2.6 DETAILED COMPARISON OF ALTERNATIVES

Table 2-1 lists the management actions proposed under each alternative, organized by resource or resource management program. Similar actions are presented in the same row and assigned a unique identification or action number to aide in commenting. Some management actions are common to multiple alternatives, whereas others vary by alternative.

Table 2-1. Detailed Comparison of Alternatives

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
General Management Direction for Action Alternatives					
1		Continue to support the development of statewide sage-grouse seasonal habitat models for the State of Wyoming.			
2		Field Offices and Ranger Districts will work with project proponents, partners, and stakeholders to avoid or minimize impacts and/or implement direct mitigation (e.g., relocating disturbance, timing restrictions, etc.), and utilize BMPs and off-site compensatory mitigation where appropriate.			
3		Utilize the Wyoming Sage-grouse Implementation Team (SGIT) and Local Working Group plans or other state or cooperatively-developed plans, analyses, and other sources of information to guide development of conservation objectives for local management of sage-grouse habitats. The BLM and Forest Service will collaborate with the State of Wyoming and appropriate federal agencies to develop appropriate conservation objectives. The BLM and Forest Service will collaborate with appropriate federal and state agencies as contemplated under the Governor's Executive Order 2013-3 in defining a framework for evaluating situations to determine if a significant causal relationship exists between improper grazing (by wildlife, wild horses, or livestock) and Greater Sage-Grouse conservation objectives where conservation objectives are not being achieved on federal land.			
4		Include the collection of baseline data and outline post-project monitoring components into project planning, as appropriate and necessary.			
5		The BLM/Forest Service will coordinate new recommendations, mitigation, and conservation measures applied for sage-grouse with the WGFD and other appropriate agencies, local government cooperators, and the Wyoming SGIT. These measures will be analyzed in site-specific NEPA documents, as necessary.			
6		Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present in a priority area. Vegetation treatments must include monitoring to determine achievement of objectives and their long-term success.			
7		Ensure site-specific, measurable, conservation and mitigation objectives are included in project planning within sage-grouse habitats.			
8		Each BLM field office and Forest Service planning unit will develop landscape-scale restoration, conservation, and maintenance strategies, including special management of seasonal habitats and identified connectivity zones outside of Greater Sage-Grouse core/priority habitat areas, working with voluntary partners and cooperating agencies. These strategies must be coordinated and reconciled with adjoining management entities that share habitats or populations.			
9		Design all range projects in a manner that minimizes potential for invasive species establishment. Monitor and treat invasive species associated with existing range improvements.			
10		Apply required design features (Appendix B) as mandatory Stipulations/Conditions of Approval (COAs) within priority/core sage-grouse habitat for fluid minerals, travel management, lands and realty, range management, wild horses and burro, solid leasable minerals (coal), locatable minerals, West Nile Virus, mineral materials, non-energy			

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		solid leasable minerals, vegetation management, fire and fuels management, and noise.			
11		Integrated vegetation management would be used to control, suppress, and eradicate, where possible, noxious and invasive species per BLM Handbook H-1740-2 and Forest Service Manual 2080.			
12		<p>Existing notices and approved plans of operations under 43 CFR 3809¹: For projects that overlap priority/core habitat areas, operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact core area habitats. The AO may convey to the operator suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations (also called the project area, which is defined by the BLM in 43 CFR 3809.5 and the Forest Service in 36 CFR 228.3). These suggested conservation measures include measures that support the overall goals and objectives of the priority/core population area strategy and may not be reasonable or applicable to the BLM/Forest Service's determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5 or likely cause a significant disturbance of surface resources under 36 CFR 228.4. The request containing the suggested conservation measures must make clear that the operator's compliance is not mandatory. Notices or plans of operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15-day completeness review of notices (or modifications thereto) and 30-day completeness review of plans of operations (or modifications thereto), the proposed project area(s) where exploration, development, mining, access and reclamation would take place should be reviewed for overlap of sage-grouse priority/core habitat areas in the corporate GIS database. If there is overlap, the BLM/Forest Service AO may notify the operator of ways that they may minimize impacts to core area habitats and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator's compliance is not mandatory and that including such measures is not a requirement for completeness of either the notice or a plan of operations, nor is it a condition of acceptance of the notice or approval of the plan of operations.</p>			
13		As new occupied sage-grouse habitat is found or occurs either through additional inventories or expansion into previously unoccupied habitat, the agencies will incorporate these areas into the general sage-grouse habitat category and manage them as such, until the earliest review occurs by the SGIT. At that time they will be considered for priority/core habitat status or continue to be managed as general habitat, and will be added to the statewide Map at that time.			
14		Contribute to actions that help to ground-truth the statewide sage-grouse seasonal habitat models for the State of Wyoming.			
15		Use the Sage-grouse Habitat Assessment Framework or best available assessment tool (approved by the AO/Responsible Official) when assessing or evaluating sage-grouse habitats at multiple scales.			
16		The official Wyoming sage-grouse lek database is maintained by the WGFD in accordance with Appendix 4B of the Umbrella Memorandum of Understanding (MOU) between the WGFD and BLM/Forest Service (WGFD and BLM 1990).			

¹ These regulations apply to the exploration and development of locatable minerals on placer claims and lode claims, as well as exploration on tunnel sites and mineral processing operations on mill sites. The location and maintenance of claims and sites are regulated under 43 CFR Subpart 3830.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		The MOU states that agencies will meet at least annually to coordinate and review the accuracy of data, and incorporate the most up-to-date information.			
17		Many sage-grouse seasonal habitats within and outside of core habitat areas are encumbered by valid existing rights, such as mineral leases or existing rights-of-way. Fluid mineral leases often will include less stringent lease stipulations than the timing, distance, and density requirements identified for consideration in this plan. Agencies (BLM/Forest Service) will work with proponents holding valid existing leases that include less stringent lease stipulations than the timing, distance, and density restrictions described within this plan to ensure that measurable sage-grouse conservation objectives (such as, but not limited to, consolidation of infrastructure to reduce habitat fragmentation and loss, and effective conservation of seasonal habitats and habitat connectivity to support management objectives set by the WGFD) are included in all project proposals.			
18		Limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed within sage-grouse priority/core habitats.			
19		Complete activity-level travel plans within five years of the ROD for this planning effort. During activity level planning, where appropriate, designate routes in priority habitat with current administrative/agency purpose or need to administrative access only. Existing plans should be assessed for consistency with sage-grouse conservation objectives.			
20		Construct roads needed for production activities to minimum design standards within sage-grouse priority/core habitats, in compliance with the Density and Disturbance Calculation Tool (DDCT).			
21		Field Office and Ranger District staff will work with project proponents (including those within the BLM/Forest Service) and the WGFD to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats whether inside or outside of sage-grouse priority/core habitat areas.			
22		Evaluate opportunities to coordinate management plans and strategies on multiple allotments where coordination under a single management plan/strategy would result in enhancing Greater Sage-Grouse populations or its habitat, as determined in coordination with the state wildlife agency and with project proponents, partners, and stakeholders.			
23		The Wyoming Greater Sage-Grouse 9-Plan LUP Amendments will include the requirement for the development of EIS/project level adaptive management strategies in support of the population management objectives for Greater Sage-Grouse set by the State of Wyoming (State of WY EO 2011-05). These adaptive management strategies will be developed in partnership with the WGFD, project proponents, partners, and stakeholders and will incorporate the best available science. The purpose of these strategies is to address localized Greater Sage-Grouse population declines by providing the framework in which management will be changed if monitoring identifies significant negative population impacts.			
24		The Wyoming BLM typically manages the public lands to meet the State of Wyoming's wildlife population objectives. The current population objective is to maintain at least 67% of the 2005-2008 Greater Sage-Grouse Core Area Population within the State of Wyoming.			

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		The Wyoming BLM and Forest Service will coordinate with the State of Wyoming in implementation planning to develop a statewide adaptive management plan and a framework to evaluate causal factors. The adaptive management plan will identify adaptive management triggers; indicators to be measured; and appropriate effective mitigation, restoration, and reclamation actions, including targets and benchmarks for responses. The plan will include both short-term and long-term monitoring. The adaptive management plan will guide the development of project-level adaptive management strategies.			
25		All existing LUP decisions will be retained unless vacated or modified by decisions in this plan amendment.			
26		Fire and fuels management would contribute to the protection and enhancement of sagebrush habitat that support Greater Sage-Grouse populations (including large contiguous blocks of sagebrush).			
27		<p>BLM and Forest Service planning units (Districts and Forests), in coordination with the USFWS and relevant state agencies, by December 2014, would complete and continue to update Greater Sage-Grouse Landscape Wildfire & Invasive Species Habitat Assessments to prioritize at-risk habitats, and identify fuels management, preparedness, suppression and restoration priorities necessary to maintain sagebrush habitat to support interconnecting Greater Sage-Grouse populations. These assessments and subsequent assessment updates would also be a coordinated effort with an interdisciplinary team to take into account other Greater Sage-Grouse priorities identified in this plan. Appendix J describes a minimal framework example and suggested approach for this assessment.</p> <p>Implementation actions will be tiered to the Local (District/Forest) Greater Sage-Grouse Landscape Wildfire & Invasive Species Assessment using the best available science related to the conservation of Greater Sage-Grouse.</p> <p>In coordination with USFWS and relevant state agencies, BLM/Forest Service planning units (Districts/Forests) will identify annual treatment needs for wildfire and invasive species management as identified in local unit level Landscape Wildfire and Invasive Species Assessments. Annual treatment needs will be coordinated across state/regional scales and across jurisdictional boundaries for long-term conservation of Greater Sage-Grouse.</p> <p>These landscape assessment implementation efforts will be reviewed annually with appropriate USFWS and state agency personnel.</p>			
28		Implement a coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System (NFDRS) thresholds (fuel conditions, drought conditions, and predicted weather patterns) for Greater Sage-Grouse habitat.			
29		Within acceptable risk levels, utilize a full range of fire management strategies and tactics, including the management of wildfires to achieve resource objectives across the range of sage-grouse habitat consistent with land use plan direction.			
Lands and Realty Management					
Rights-of-Way (e.g., Power lines, Transmission, Wind Energy Projects)					
30	Portions of sage-grouse core habitat areas would be managed as ROW exclusion areas (Map 2-9).	Priority sage-grouse habitat areas would be managed as exclusion areas for new BLM ROW	Sage-grouse priority and general habitat areas would be managed as ROW exclusion areas for	Sage-grouse core habitat areas would be managed as ROW exclusion areas for new ROW or SUA	Sage-grouse core habitat areas would be managed as ROW avoidance areas for new ROW or SUA

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<p>or Forest Service Special Use Authorization (SUA) permits (Map 2-10). Consider the following exceptions:</p> <ol style="list-style-type: none"> 1. Within designated ROW or SUA corridors encumbered by existing ROW or SUA authorizations, new ROWs could be co-located only if the entire footprint of the proposed project (including construction and staging) can be completed within the existing disturbance associated with the authorized ROWs or SUAs. 2. Subject to valid, existing rights where new ROWs or SUAs associated with valid existing rights are required, new ROWs or SUAs would be co-located within existing ROWs or SUAs or where it best minimizes sage-grouse impacts. Existing roads or realignments, as described above, would be used to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, any new 	<p>new ROW or SUA permits (Map 2-11). Consider the following exceptions:</p> <ol style="list-style-type: none"> 1. Within designated ROW or SUA corridors encumbered by existing ROW or SUA authorizations, new ROWs and SUAs could be co-located only if the entire footprint of the proposed project (including construction and staging) can be completed within the existing disturbance associated with the authorized ROWs or SUAs. 2. Subject to valid, existing rights where new ROWs or SUAs associated with valid existing rights are required, new ROWs and SUAs would be co-located within existing ROWs or SUAs or where it best minimizes sage-grouse impacts. Existing roads or realignments, as described above, would be used to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, any new road would be 	<p>permits (Map 2-12). Consider the following exceptions:</p> <ol style="list-style-type: none"> 1. Within designated ROW corridors encumbered by existing ROW or SUA authorizations, new ROWs and SUAs could be co-located within the designated corridors. 2. Subject to valid existing rights including non-federal land inholdings, required new ROWs and SUAs would be co-located within existing ROWs or SUAs or where it best minimizes sage-grouse impacts. Existing roads or realignments, as described above, would be used to access valid existing rights that are not yet developed. 3. If valid existing rights cannot be accessed via existing roads, any new road would be constructed to the absolute minimum standard necessary, and the surface disturbance would be added to the total disturbance in the core habitat area. If that disturbance exceeds 9% for that area, additional effective 	<p>permits (Map 2-13).</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		road would be constructed to the absolute minimum standard necessary, and the surface disturbance would be added to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, additional effective mitigation would be evaluated and implemented on a case-by-case basis to offset the resulting loss of sage-grouse habitat.	constructed to the absolute minimum standard necessary, and the surface disturbance would be added to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, additional mitigation that has been demonstrated to be effective would be used to offset the resulting loss of sage-grouse habitat.	mitigation necessary to offset the resulting loss of sage-grouse would be used. If such a ROW or SUA is subsequently relinquished, the AO would require the holder to complete reclamation with objective of ensuring reestablishment of prior affected sage-grouse habitat.	
31	Portions of sage-grouse general habitat areas would be managed as ROW avoidance areas (Map 2-9).	General sage-grouse habitat areas would be managed as avoidance areas for new ROWs or SUAs, except for areas currently managed as ROW exclusion areas (2-10). Within general sage-grouse habitat where new ROWs/SUAs are necessary, new ROWs/SUAs would be co-located within existing ROWs/SUAs where technically feasible.	No similar action	General sage-grouse habitat areas would be available for new ROWs or SUAs, subject to BMPs.	In addition to Alternative A: Within general sage-grouse habitat where new ROWs/SUAs are necessary, new ROWs/SUAs would be co-located within existing ROWs/SUAs where technically feasible. Appropriate sage-grouse seasonal timing constraints would be applied.
32	Sage-grouse core and connectivity habitat areas: <u>Casper RMP:</u> No new corridor designations would be	Sage-grouse priority and connectivity habitat areas: New transmission corridors would not be authorized.	No similar action	Sage-grouse core and connectivity habitat areas: New transmission projects would be allowed in existing designated utility	Sage-grouse core and connectivity habitat areas: In addition to Alternative A: New transmission projects

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>made in Bates Hole. When placement of a major ROW facility within a designated corridor is not possible, and for smaller ROW and other linear facilities, placement would be adjacent to existing facilities or disturbances. Cross- country placement of ROW and other linear facilities would be allowed only when placement in a designated corridor or adjacent to an existing facility is not practical or feasible. The extent of all surface disturbances would be minimized.</p> <p>No new corridors would be established in the Sand Hills Management Area (MA); ROWs would be allowed when management objectives for the area can still be achieved.</p> <p>All currently designated corridors would be maintained All special restrictions that apply to types of use/facilities on the corridors would be removed, except as noted for the Oregon Trail Road ROW Corridor, Segment A. The corridors include 351,020 acres, of which 94,580 acres are federal surface. The widths/size of designated corridors would not change. Special</p>	<p>New above-ground transmission structures would be prohibited both inside and outside existing corridors.</p>		<p>corridors (i.e., West Wide Energy Corridor, RMPs, etc.).</p> <p>New transmission projects would be allowed within the proposed 2-mile wide transmission line corridor through sage-grouse core habitat population areas in south-central and southwestern Wyoming (see Map 2-15 from EO 2011-5).</p> <p>New transmission lines would be authorized if they are constructed within the 2-mile wide corridor between July 1 and March 14 (or between July 1 and November 30 in sage-grouse winter concentration areas).</p> <p>In addition, new transmission lines would be authorized if they are constructed between July 1 and March 14 (or between July 1 and November 30 in sage-grouse winter concentration areas) and within one half mile either side of existing 115 kV or larger transmission lines.</p> <p>New transmission projects may be constructed outside the 2-mile wide corridor and the one-mile wide corridor mentioned above, in consideration of other resources, when it</p>	<p>would be allowed within the 2-mile wide transmission line route through sage-grouse core habitat population areas in south-central and southwestern Wyoming (see Map 2-15 from EO 2011-5) and within 0.5 mile on either side of existing 115 kV or larger transmission lines (creating a route no wider than 1 mile). Projects in designated corridors and along these routes will not be counted against the 5% disturbance cap (Wyoming Density and Disturbance Calculation Tool Manual).</p> <p>New transmission projects proposed outside of these areas would be considered where it can be demonstrated that declines in sage-grouse populations could be avoided through project design and/or mitigation.</p> <p>In conducting review of power line transmission proposals, the use of the Framework for Sage-grouse Impacts Analysis for Interstate Transmission Lines or other appropriate documents are necessary. These transmission and distributions lines should be sited to minimize any potential impact on</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>restrictions applying to types of use/facilities on the corridors would be removed on a case-by-case basis. Existing corridors include:</p> <ol style="list-style-type: none"> 1. Oregon Trail Road Corridor, Segment A 2. Oregon Trail Road Corridor, Segment B 3. Oregon Trail Road Corridor, Segment C 4. Poison Spider/Gas Hills Road Corridor 5. Highway 20-26 Corridor 6. Wyoming Highway 259/U.S. 87 Corridor 7. Wyoming Highway 387 Corridor 8. Lost Cabin-Arminto Road Corridor 9. RMP Change No. 2012-03: included the 10. West wide Energy Corridor 11. Cabin Creek Corridor 12. Existing Oregon Trail Road ROW Corridor, Segment A <p>Oregon Trail Road ROW Corridor, Segment A allows additional ROW facilities provided they are subsurface, surface, or low profile developments. ROW facilities that introduce visual intrusions on the skyline along the corridor would not be allowed. Special restrictions applying to</p>			<p>can be demonstrated that the activity will not cause declines in sage-grouse populations through project design and/or mitigation.</p>	<p>sage-grouse or their habitats, and must consider siting along or adjacent to existing long-term linear disturbance features whenever possible (i.e., along existing occupied above ground utilities, roads).</p> <p>New projects within sage-grouse core habitats that may require future distribution and transmission lines would include the proposed distribution and transmission lines in their DDCT as part of the proposed disturbance. Lines permitted but not located in the above mentioned routes or a designated corridor will be counted towards the 5% disturbance calculation (line disturbance is equal to ROW width multiplied by length and includes all access roads, staging areas, and other surface disturbance associated with construction outside of the ROW).</p> <p>New Distribution Lines: New electric distribution lines would be buried where feasible. If not feasible, overhead lines would be located at least 0.6 miles from the</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>types of use/facilities on the corridors would be removed on a case-by-case basis, and a new corridor, to be called the Cabin Creek Corridor, would be designated.</p> <p>Future Corridor Adjustments and New Corridor Designations:</p> <p>Future corridor adjustments and new corridor designations would be made only when facility placement within an existing designated corridor is incompatible, unfeasible, or impractical and when the environmental consequences can be adequately mitigated. Problems of technical compatibility between facilities and spacing of facilities in corridors would be solved on a case-by-case basis. Special restrictions applying to types of use/facilities on the corridors would be removed on a case-by-case basis.</p> <p>South Bighorns/Red Wall Management Area:</p> <p>No corridors would be designated; however, ROWs would be allowed on a case-by-case basis when management objectives for the area</p>				<p>perimeter of occupied Greater Sage-Grouse leks and raptor perch deterrents would be installed.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>could still be achieved.</p> <p><u>Kemmerer RMP:</u> Utility corridors would be designated, based on use (i.e., power lines, pipelines, and fiber optic lines). Preferred utility corridors would be 2 miles wide (width would be determined based on resource values) and designated as follows, but variances would be allowed based on application where conflicts with other resources were minimal or could be mitigated through resource-specific stipulations:</p> <p>High-voltage power line corridors would be established north of and parallel to I-80, and along Wyoming SH 89 from the junction of I-80 and the Wyoming state line.</p> <p>Fiber optic and low-voltage power line corridors would be located along currently established road systems (e.g., interstate or state highways and paved county roads).</p> <p><u>Newcastle RMP:</u> Utility/transportation systems would be located adjacent to existing utility/transportation systems whenever</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>practical. Areas to be avoided for new facility placement and routes would be identified on a case-by-case basis, rather than attempting to establish utility corridors.</p> <p><u>Pinedale RMP:</u> Utility facilities would be restricted to existing routes and designated corridors where practicable, including environmental and socioeconomic considerations. Corridor routes include U.S. Highways 189 and 191 and State Highways 189, 191, 350, 351, 352, 353, and 354. New corridors could be established as oil and gas fields are developed.</p> <p><u>Rawlins RMP:</u> All BLM-administered public lands, except WSAs and some SD/MAs (including ACEC/SIAs), would be open to consideration for placement of utility ROW systems. Each utility ROW would be located adjacent to existing facilities, when possible. Areas with important or sensitive resource values would be avoided.</p> <p>Existing major transportation and utility ROW routes would be</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>designated corridors. However, major transportation routes within the planning area that are located east of the Carbon County-Albany County line would not be considered for ROW corridor designation because of the scattered public landownership pattern in the area. All corridors would be designated for power lines (above ground and buried), telephone lines, and fiber optic lines. Specific proposals would require site-specific environmental analysis and compliance with established permitting processes.</p> <p>Activities generally excluded from ROW corridors include mineral materials disposal, range and wildlife habitat improvements involving surface disturbance and facility construction, campgrounds, and public recreation facilities and other facilities that would attract public use.</p> <p>ROW facilities would not be placed adjacent to each other if issues with safety or incompatibility or resource conflicts were identified. The designated width, allowable uses, and</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>excluded uses for each corridor may be modified during implementation of the Approved RMP.</p> <p><u>Green River RMP:</u> Areas designated as utility windows would be preferred locations for future grants. Five windows have been identified: 2 east-west, 3 north-south. Other areas would be considered for rights-of-way on a case-by-case basis. Windows 0.5 mile in width have been identified for the placement of utilities. The northern east-west window would be for underground facilities only, and the southern east-west window would be for both above and below ground facilities. A 0.5 mile wide north-south window on the west side of Flaming Gorge, a window south along Highway 430, and a north-south window along the east side of Flaming Gorge have been identified for above and below ground utilities.</p> <p><u>Jack Morrow Hills Coordinated Activity Plan (JMH CAP):</u> The planning area, with the exception of defined exclusion and avoidance areas, would be open to considering grants of</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>rights-of-way if area objectives could be met. Exclusion areas are closed to rights-of-way. Avoidance and special management areas not identified as exclusion areas would be open to consideration only after site-specific analysis demonstrates area objectives could be met (see glossary) in Greater Sage-Grouse potential nesting habitat.</p> <p><u>TBNG LRMP:</u> Utility companies would be permitted to construct new utility corridors, unless prohibited by management direction.</p> <p><u>MBNF LRMP:</u> Current utility corridors would be fully utilized. Corridors would be provided in the future in areas that meet the needs of society while protecting the integrity of the environment.</p> <p><u>BTNF LRMP:</u> Within sage-grouse core habitat areas, disturbance would be limited by co-locating roads, pipelines, gathering lines, and power lines for energy resource development.</p> <p>New roads, pipelines, gathering lines, and technically required</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	overhead power lines would be routed in a manner as to minimize visual impacts and conform to approved corridors. When these facilities leave corridors, they should be subordinate to the landscape.				
33	No similar action	Existing designated ROW corridors crossing sage-grouse priority habitat that are void of any authorized ROWs would be relocated outside of the priority habitat area. If relocation is not possible, the entire corridor would be undesignated during the planning process.	Same as Alternative B	No similar action	No similar action
34	<u>Kemmerer RMP:</u> New utility lines would be buried or BLM-approved anti-perch devices would be installed on all new utility lines within sagebrush and/or semiarid shrub-dominated habitats, unless NEPA analysis shows little or no impact without burial or modification. <u>BTNF LRMP:</u> Operations would be conducted in a manner that will offer the least possible disturbance to wildlife on or adjacent to the leased land.	No similar action	ROWs would be amended to require features that enhance sage-grouse habitat security. Existing designated corridors in BLM ACECs and Forest Service Special Areas could be accessed for maintenance.	Maintenance of existing structures would be allowed and upgrades would be considered, subject to BMPs.	Maintenance/ replacement of existing structures would be allowed subject to valid and existing rights. Upgrades would be considered, subject to mandatory Required Design Features (RDF) (Appendix B). Existing guy wires should be removed or appropriately marked with bird flight diverters to make them more visible to sage-grouse in flight. Structures that provide less suitable perching opportunities for raptors/corvids should be installed (e.g., perch

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					deterrents or other anti-perching devices), or existing towers should be retrofitted with perch deterrents to limit sage-grouse predation.
35	No similar action	<p>Opportunities to remove, bury, or modify existing power lines within priority sage-grouse habitat areas would be evaluated and taken advantage of.</p> <p>Where existing leases or ROWs or SUAs have had some level of development (e.g., road, fence, and well) and are no longer in use, the site would be reclaimed by removing these features and restoring the habitat.</p>	Same as Alternative B	No similar action	<p>Where existing authorizations, ROWs, or SUAs have had some level of development (e.g., road, fence, and well) and are expired and are no longer in use, the site would be reclaimed by removing these features and restoring the habitat. In areas where existing facilities cannot be removed, buried, or modified, perch deterrents would be required.</p>
Renewable Energy					
36	Wind energy development would be allowed within sage-grouse core habitat areas, except in areas that are currently unavailable due to the need to protect sensitive resources (Map 2-29).	No similar action	Wind energy development would be prohibited in sage-grouse priority and general habitat areas (Map 2-31).	Wind energy development would be prohibited in sage-grouse core habitat areas (Map 2-32), unless it can be sufficiently demonstrated that the development activity would not result in declines of sage-grouse core habitat populations. Sufficient demonstration of "no declines" should be coordinated with the WGFD and USFWS. Areas that are currently unavailable due to the need to protect sensitive	Same as Alternative D

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
				resources would remain unavailable to wind energy development.	
37	No similar action	No similar action	Wind energy development would be sited at least five miles from active sage-grouse leks.	No similar action	No similar action
38	<p><u>Kemmerer RMP:</u> New meteorological towers (MET) towers would be avoided within 1 mile of occupied sagebrush obligate habitats, unless anti-perch devices are installed. MET towers relying on guy wires for support would be prohibited in these habitats. Exceptions could be made if NEPA analysis shows little or no impact to sagebrush obligate species.</p> <p><u>Rawlins RMP:</u> MET towers would be authorized on a case-by-case basis from 0.25 mile to 1 mile of an occupied Greater Sage-Grouse and sharp-tailed grouse lek.</p>	In addition to Alternative A: MET towers would be prohibited in sage-grouse priority habitat areas.	Same as Alternative A	Same as Alternative A	In addition to Alternative A: The use of guy wires for MET tower supports would be avoided within sage-grouse core habitat areas. All existing and any new unavoidable guy wires should be marked with recommended bird deterrent devices. The siting of new temporary MET towers within sage-grouse core habitat areas would be avoided within 2 miles of active sage-grouse leks, unless they are out of the direct line of sight of the active lek.
39	No similar action	No similar action	Industrial solar projects would be prohibited in ACECs and occupied sage-grouse habitats.	No similar action	No similar action
Land Tenure Adjustments (Acquisitions, Land Exchanges, Transfers and Sales)					
40	<u>Casper RMP:</u> 224,830 acres of public lands are identified as	The BLM Forest Service would retain public ownership of sage-grouse	Same as Alternative B, without exceptions for disposal to consolidate	The BLM/Forest Service would retain ownership of sage-grouse core habitats	The BLM/Forest Service would retain public ownership of sage-grouse

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>potentially suitable for disposal. At the implementation stage, site-specific analysis with public participation will be conducted. Based on the analysis and public comments received, a determination will be made on whether disposal of the parcel is in the public's best interest. If it is not in the public's best interest, the parcel will be retained in public ownership.</p> <p>Restricted Disposal – dispose of 5,450 acres on a restricted basis.</p> <p>Allow land-use authorizations under FLPMA Section 302(b) leases and permits to meet public demand.</p> <p>Evaluate on a case-by-case basis as proposals are presented. Potential lease and permit areas may include, but are not limited to the following:</p> <ol style="list-style-type: none"> 1. Areas where there are documented or existing trespass facilities that can be resolved by an authorization under this section 2. Areas along major highways where developments may facilitate public needs 3. Areas in or adjacent to residential, agricultural, 	<p>priority habitat.</p> <p>Exceptions would be considered where there is mixed ownership and land exchanges would allow for additional or more contiguous federal ownership patterns within the sage-grouse priority habitat area.</p> <p>Under sage-grouse priority habitat areas with minority federal ownership, an additional, effective mitigation agreement would be included for any disposal of federal land. As a final preservation measure, consideration should be given to pursuing a permanent conservation easement.</p>	<p>ownership that would be beneficial to sage-grouse.</p>	<p>unless economic or other benefits are determined.</p>	<p>core habitat.</p> <p>Exceptions would be considered where there is mixed ownership and land exchanges would allow for additional or more contiguous federal ownership patterns within sage-grouse core habitat areas.</p> <p>For sage-grouse core habitat areas with minority federal ownership, an additional, effective mitigation agreement would be included for any disposal of federal land. As a final preservation measure, consideration should be given to pursuing a permanent conservation easement.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	commercial, or industrial developments The BLM will pursue acquisition of lands and interest in lands in the South Bighorns/Red Wall area.				
41	<u>Casper RMP:</u> The BLM would pursue acquisition of lands and interest in lands in the Bolton Creek Drainage and Bates Creek areas.	Areas where acquisitions (including subsurface mineral rights) or conservation easements would benefit sage-grouse habitat would be identified	Same as Alternative B	Same as Alternative A	Same as Alternative B
42	No similar action	Where suitable conservation actions cannot be achieved, the BLM/Forest Service would seek to acquire state and private lands with intact subsurface mineral estate or BLM/National Forest System Lands that need subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore sage-grouse habitat.	The BLM/Forest Service would strive to acquire important private lands in BLM-designated ACECs and Forest Service Sage-Grouse Special Areas. Acquisition will be prioritized over easements.	The BLM/Forest Service would acquire lands based on a variety of economic resources criteria. Land exchanges outside of sage-grouse core habitat would be considered if lands can be exchanged for lands within sage-grouse core habitat.	Sage-grouse habitat requirements would be utilized to prioritize parcels for exchange or acquisition within core habitat areas.
43	No similar action	In priority habitat, withdrawal proposals not associated with mineral activity would not be approved unless the land management is consistent with sage-grouse conservation measures. (For example, in a proposed withdrawal for a military training range	Withdrawal proposals not associated with mineral activity would not be approved unless the land management is consistent with sage-grouse conservation measures. (For example, in a proposed withdrawal for a military training range buffer area, the buffer	No similar action	Within core habitat, non-mineral withdrawals would be evaluated to determine if the withdrawal action is consistent with sage-grouse conservation.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		buffer area, the buffer area would be managed with sage-grouse conservation measures.)	area would be managed with sage-grouse conservation measures that have been demonstrated to be effective.)		
Livestock Grazing Management					
44	<p>The BLM policy in WO-IM-2009-007 and BLM Handbook H-4180-1 and a National Forest's LRMP or allotment specific NEPA decision for the Forest Service would be used to evaluate land health standards achievement in sage-grouse core habitats and, where not achieved, to determine if existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards and conform with the guidelines, which through this process will identify appropriate actions to address non-achievement and non-conformance.</p> <p>When determining appropriate actions to address non-achievement of land health standards and non-conformance with the guidelines due to existing grazing management practices or levels of grazing use,</p>	Allotments not meeting standards due to livestock grazing in sage-grouse priority habitat would incorporate a light grazing management strategy utilizing a 20-30% forage allocation for livestock.	Livestock grazing would be prohibited within sage-grouse priority habitat.	Same as Alternative A	Same as Alternative A

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>management actions including but not limited to the following would be considered singly or in combination:</p> <ol style="list-style-type: none"> 1. Season or timing of use 2. Numbers of livestock (includes temporary non-use or livestock removal) 3. Distribution of livestock use 4. Intensity of use (utilization or stubble height objectives) 5. Kind of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) 6. Class of livestock (e.g., yearlings versus cow calf pairs) 7. Refer to the document, "Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat" (Cagney et al. 2010) for guidance when considering appropriate management actions to achieve conformance. 				
45	No similar action	In priority habitat, the BLM/Forest Service would work cooperatively on integrated ranch planning within sage-grouse habitat so operations with deeded	No similar action	The BLM/Forest Service would work cooperatively with permittees, lessees, and other landowners to develop grazing management strategies on	The BLM/Forest Service would work cooperatively with permittees, lessees, and other landowners to develop voluntary grazing management strategies

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		BLM and/or Forest Service allotments can be planned as single units.		an allotment-by-allotment basis to improve sage-grouse habitat.	that integrate both public and private lands into single management units to improve sage-grouse habitat.
Livestock Grazing Permit Monitoring					
46	<p><u>Casper RMP:</u> Grazing leases would be adjusted where an evaluation of monitoring, field observations, or other data indicate changes, and either increases or decreases, in forage allocation are needed or when necessary or required by other applicable law or regulation.</p> <p><u>Kemmerer RMP:</u> Vegetative communities would be managed in accordance with Wyoming Standards for Healthy Rangelands. Appropriate livestock grazing management actions would be developed and integrated to address rangeland health standards, improve forage for livestock, and enhance rangeland health.</p> <p><u>Newcastle RMP:</u> Any adjustments in livestock grazing use would be made as a result of monitoring and consultation with grazing</p>	<p>In addition to Alternative A: Measureable objectives would be monitored and grazing management would be evaluated to assure that management actions are achieving sage-grouse habitat objectives. When conducting land health assessments, indicators and measurements of structure, condition, and composition of vegetation specific to achieving sage-grouse habitat objectives would be included. If local/state seasonal habitat objectives are not available, sage-grouse habitat recommendations from Connelly et al. 2000b and Hagen et al. 2007 would be used Completion of land health assessments (Forest Service may use other analyses) and processing grazing permits within sage-grouse priority habitat areas would be prioritized. This process</p>	<p>In addition to Alternative A: Measureable objectives would be monitored and grazing management would be evaluated to assure that management actions are achieving sage-grouse habitat objectives. Composition, function, and structure of native vegetation communities would be consistent with the reference state of the appropriate ESD and would provide for healthy, resilient, and recovering sage-grouse habitat components.</p>	<p>In addition to Alternative A: The BLM/Forest Service would continue to prioritize oversight and effectiveness monitoring of grazing activities to ensure compliance with permit conditions and that progress is being made on achieving Wyoming land health standards on BLM-administered lands.</p>	Same as Alternative A

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>permittees. Monitoring studies would be conducted using the current BLM-approved methodology.</p> <p><u>Pinedale RMP:</u> Monitoring of the range and the vegetation resource would be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions. Monitoring would be tied to land health standards and indicators that help determine change in status and progress toward meeting objectives. Data would be used to direct and support grazing management decisions consistent with national policy.</p> <p><u>Rawlins RMP:</u> Livestock grazing would be managed to meet the Wyoming Standards for Healthy Rangelands.</p> <p><u>Green River RMP/JMH CAP:</u> The kinds and seasons of livestock grazing use would continue to be licensed until monitoring, negotiation, consultation, or a change in resources conditions indicate that a modification is needed. Monitoring would be</p>	<p>would focus on allotments that have the best opportunities for conserving, enhancing, or restoring habitat for sage-grouse. BLM/Forest Service Ecological Site Descriptions (ESDs) (Forest Service may use other methods) would be utilized to conduct land health assessments to determine if standards of rangeland health are being met.</p>			

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	continued or initiated following adjustments in grazing use to assure that grazing and other management objectives are being met.				
47	No similar action	No similar action	In sage-grouse habitat, the BLM/Forest Service would ensure that soil cover and native herbaceous plants are at their ESD potential to help protect against invasive plants. In areas without ESDs, reference sites would be utilized to identify appropriate vegetation communities and soil cover.	No similar action	No similar action
Permit Renewals					
48	<u>TBNG LRMP:</u> During the AMP process or as other opportunities arise, livestock grazing strategies would be designed and implemented to provide quality nesting cover in all sagebrush stands (>15% canopy cover of big sagebrush, silver sagebrush, and greasewood) within at least 3.0 miles of active display grounds (consistent with GA vegetation objectives) where sagebrush is irregularly distributed around the display ground. This minimum distance could be reduced to 2.0	If the LUP identifies specific allotment and/or permits where retirement is potentially beneficial, but the plan directs further site-specific analysis, a land use plan amendment would not be required to retire the permit as long as the site-specific analysis is consistent with the ROD.	Same as Alternative B	In addition to Alternative A: As the grazing permits are renewed incorporating sage-grouse habitat objectives and management considerations in core habitats would be considered.	In Addition to Alternative A: Within sage-grouse core habitat, as appropriate, site specific sage-grouse habitat objectives and management considerations would be incorporated into all BLM and Forest Service grazing allotments through Allotment Management Plans (AMPs), permit renewals, Forest Service Annual Operating Instructions, and/or equivalent planning processes.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>miles where sagebrush is uniformly distributed around display grounds.</p> <p><u>MBNF LRMP:</u> Livestock grazing on rangelands would be coordinated to provide adequate cover and forage for sage-grouse.</p>				
49	<p><u>Casper RMP:</u> Conversions in kinds of livestock and changes in season of use would be considered on a case-by-case basis through an environmental analysis. Such changes will be consistent with rangeland health objectives. Grazing leases will be adjusted to accurately reflect the kind of livestock use on public land in all allotments.</p> <p><u>Kemmerer RMP:</u> Current amounts, kinds, and seasons of livestock grazing uses would be authorized until rangeland health standards assessment results and (or) monitoring indicates a grazing use adjustment is necessary, or that a kind and (or) class of livestock or season of use modification can be accommodated.</p> <p><u>Newcastle RMP:</u> Any adjustments in</p>	<p>The BLM/Forest Service would implement management actions (grazing decisions, conservation plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. The BLM/Forest Service would consider singly, or in combination, changes in:</p> <ol style="list-style-type: none"> 1. Season or timing of use 2. Numbers of livestock (includes temporary non-use or livestock removal) 3. Distribution of livestock use 4. Intensity of use (utilization or stubble height objectives) 5. Kind of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) 6. Class of livestock (e.g., yearlings versus cow 	No similar action	Same as Alternative B	<p>The BLM and Forest Service policies and the equivalent Annual Operating Instructions would be used to evaluate progress toward achieving land health standards in sage-grouse core habitat areas and, where not achieved, to determine if existing grazing management practices or levels of grazing use on public lands are significant factors in failing to meet, maintain or make progress towards achieving the standards and conform with the guidelines, which through this process will identify appropriate actions to address non-achievement and non-conformance.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>livestock grazing use would be made as a result of monitoring and consultation with grazing permittees. Monitoring studies would be conducted using the current BLM-approved methodology.</p> <p><u>Pinedale RMP:</u> Conversions from one type of livestock to another would be evaluated on a case-by-case basis, including an environmental analysis, and would be authorized in conformance with the goals and objectives of the RMP.</p> <p><u>Rawlins RMP:</u> The current amounts, kinds, and seasons of livestock grazing use would be authorized until monitoring, field observations, ecological site inventory, or other data acceptable to BLM indicates a grazing use adjustment is needed, as appropriate. Requests for changes in season-of use or kind-of-livestock would be considered on a case-by-case basis. Any decision regarding changes in grazing use would include cooperation, consultation, and coordination with the grazing permittees and the</p>	<p>calf pairs)</p> <p>7. When processing NEPA for grazing permit renewals, include at least one alternative that would implement a deferred or rest-rotation grazing system, if one is not already in place and the size of the allotment warrants it.</p> <p>The BLM/Forest Service would consider terms and conditions on grazing permits and leases that assure plant growth requirement are met and residual forage remains available for sage-grouse hiding cover.</p>			

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>interested public.</p> <p><u>Green River RMP:</u> The Wyoming Standards for Healthy Rangelands (BLM 1997a) would apply to all resource uses on BLM-administered lands. These standards are the minimal acceptable conditions that address the health, productivity, and sustainability of the rangeland. The standards describe healthy rangelands rather than rangeland by-products. Achievement of a standard is determined through observing, measuring, and monitoring appropriate indicators. An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. The standards will direct the management of public lands and focus the implementation of this activity plan toward the maintenance or attainment of healthy rangelands.</p> <p><u>TBNG LRMP:</u> During the AMP process or as other opportunities arise, livestock grazing strategies would be</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>designed and implemented to provide quality nesting cover in all sagebrush stands (>15% canopy cover of big sagebrush, silver sagebrush, and greasewood) within at least 3.0 miles of active display grounds (consistent with GA vegetation objectives) where sagebrush is irregularly distributed around the display ground. This minimum distance could be reduced to 2.0 miles where sagebrush is uniformly distributed around display grounds.</p> <p><u>BTNF LRMP:</u> Fisheries, riparian habitats, and TES species' needs would be addressed in allotment management plans.</p> <p>Range improvements, management activities, and trailing would be coordinated with and designed to help meet fish and wildlife needs, especially on key habitat such as crucial winter range, seasonal calving areas, riparian areas, sage-grouse leks, and nesting sites. Special emphasis would be placed on helping to meet the needs of TES species.</p>				
50	When livestock grazing	Retirement of grazing	Same as Alternative B	In addition to	Same as Alternative A

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>permits and/or grazing preference are voluntarily relinquished, the relinquishment of grazing preference would be managed according to appropriate BLM and Forest Service regulations.</p>	<p>privileges would be maintained as an option in sage-grouse priority habitat areas when the current permittee is willing to retire grazing on all or part of an allotment.</p> <p>The adverse impacts of no livestock use on wildfire and invasive species threats would be analyzed in evaluating retirement proposals.</p> <p>Retirement of grazing preference would be provided on a case by case basis when the advantage to sage-grouse habitat warrants, and a permittee or lessee voluntarily relinquishes their grazing preference in a specific grazing allotment or when a property is transferred.</p> <p>No temporary use would be allowed in allotments where grazing preference has been relinquished.</p> <p>If the LUP identifies specific allotment and/or permits where retirement is potentially beneficial, but the plan directs further site-specific analysis, a land use plan amendment would not be required to retire the permit as long as the site-specific analysis is consistent with the ROD.</p>		<p>Alternative A: Retirement of up to 15% within the individual planning unit would be authorized for grazing allotments in sage-grouse core habitat areas, where the permittee or lessee voluntarily relinquishes their grazing preference in their grazing allotment.</p> <p>Temporary use may be allowed in allotments where grazing preference has been relinquished or non-use warrants, to rest other allotments that include important sage-grouse habitat.</p>	

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
51	No similar action	Each planning effort would identify the specific allotment(s) where permanent retirement of grazing privileges is potentially beneficial to sage-grouse.	In each planning process, grazing allotments where permanent retirement of grazing privileges would be potentially beneficial to sage-grouse would be identified.	No similar action	No similar action
52	<u>Casper RMP:</u> Other management considerations for use of stock driveway withdrawals (SDW) would include providing emergency use for relief from fire, drought, or other natural causes or to meet management objectives in adjoining allotments that require rest. These other uses would be addressed on a case-by-case basis and may occur any time during the year provided the AO has determined adequate forage is available and it does not interfere with regular trail use. The decision determining there is adequate forage would be documented and filed in the appropriate SDW file. Consultation and coordination with livestock owners who regularly use the respective SDW would be made prior to authorizing this type of use. This use would be authorized in accordance with Federal grazing regulations.	In addition to Alternative A: During drought periods, evaluating effects of drought in sage-grouse priority habitat areas relative to their needs for food and cover would be prioritized. Since there is a lag in vegetation recovery following drought, the BLM/Forest Service would ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority habitat areas.	In addition to Alternative A: During drought periods, evaluating effects of drought in sage-grouse priority and general habitat areas relative to their biological needs would be prioritized, as well as drought effects on ungrazed reference areas. Since there is a lag in vegetation recovery following drought, the BLM/Forest Service would ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in sage-grouse habitat areas based on sage-grouse habitat objectives.	In addition to Alternative A: If periods of drought occur within sage-grouse core habitat, where appropriate, the season of use and stocking rate would be evaluated and adjusted through coordination with grazing permittee/lessee and annual billings processes.	In addition to Alternative A: If periods of drought occur, where appropriate, the AO would evaluate strategies to address drought through coordination with grazing permittee/lessee and annual billings processes. In cooperation with livestock grazing permittees/lessees, drought contingency plans would be developed at the appropriate landscape unit that provide for a consistent/appropriate BLM/Forest Service response. Plans should establish policy for addressing ongoing drought and post-drought recovery.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>A drought contingency plan would be developed to maintain adequate habitat components for viable fish, wildlife, and special status species populations.</p> <p><u>BTNF LRMP:</u></p> <p>Non-use for resource protection can be approved as a result of ongoing drought conditions. Requests by permittees to downsize or de-stock because of extreme or prolonged drought are in the interest of sound rangeland management, should be approved on a case-by-case allotment basis, and should not count against the permittee's period of nonuse for personal convenience.</p> <p><u>TBNG LRMP:</u></p> <p>At the onset of drought, the need to adjust land uses to reduce impacts on sage-grouse nesting and brooding habitat would be evaluated.</p>				
Range Development Projects					
53	<p><u>Casper RMP:</u></p> <p>Identified hazard fences would be modified and new fences would be constructed in accordance with the BLM Fencing Handbook 1741-1. Decision 4010.</p>	<p>In addition to Alternative A: In priority habitat, any new structural range improvements and location of supplements (salt or protein blocks) would be designed to</p>	<p>In addition to Alternative A: All new structural range developments and location of supplements (salt or protein blocks) would be avoided in sage-grouse priority and</p>	<p>In addition to Alternative A: In sage-grouse general and core habitat, existing range improvements (e.g., fences, livestock/wildlife watering facilities) associated with grazing</p>	<p>In addition to Alternative A: In sage-grouse general and core habitat, existing range improvements (e.g., fences, livestock/wildlife watering facilities) would continue to be evaluated</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Placement of salt, mineral, or forage supplements for livestock would not be allowed within 0.25 mile of water, wetlands, and riparian areas, unless written analysis shows that watershed, riparian, wetland, wildlife, and vegetative values would not be adversely impacted. Forage supplements would be required to be “certified weed-free.”</p> <p><u>Kemmerer RMP:</u> BLM fencing standards would be applied to newly constructed fences on BLM-administered lands within the planning area. Existing fences would be eliminated or modified to reduce conflicts on a case-by-case basis. Livestock salt or mineral supplements would be located a minimum of 0.25 mile away from water sources, riparian areas, and aspen stands. Buffers would be based on resource concerns on a case-by-case basis.</p> <p><u>Newcastle RMP:</u> Fence construction would be required to meet current BLM fence standards. Fences on BLM-administered public land surface that cause</p>	<p>conserve, enhance, or restore sage-grouse habitat through an improved grazing management system relative to sage-grouse objectives.</p> <p>Structural range improvements, in this context, would include but would not be limited to: cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.</p> <p>When fences are necessary, in sage-grouse habitat a sage-grouse-safe design would be required.</p> <p>To reduce sage-grouse strikes and mortality fences in high risk areas would be removed, modified, or marked within sage-grouse habitat based on proximity to lek, lek</p>	<p>general habitat unless independent peer-reviewed studies show that the range improvement structure or nutrient supplement placement benefits sage-grouse.</p> <p>Structural range developments, in this context, would include but would not be limited to cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction. The comparative cost of changing grazing management instead of constructing additional range developments would be considered.</p> <p>Fences in areas of moderate or high risk of sage-grouse strikes would be removed, modified, or marked within sage-</p>	<p>management operations would continue to be evaluated and modified when necessary for reducing impacts on Greater Sage-Grouse and its habitat.</p>	<p>and modified when necessary.</p> <p>The potential risk to Greater Sage-Grouse and its habitats from existing structural range improvements would be evaluated. The potential for modification of those structural range improvements identified as posing a risk would be addressed.</p> <p>Supplements and supplemental feeding would continue to be authorized where appropriate.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>documented wildlife conflicts would be removed, reconstructed, or modified, as appropriate or necessary, to eliminate or reduce the conflict.</p> <p>Construction of fences that interfere with movements of big game species in crucial big game winter range would not be allowed on BLM-administered public land surface.</p> <p><u>Pinedale RMP:</u> Mineral supplement blocks would be placed in locations that promote proper grazing distribution and prevent inappropriate livestock use on riparian habitat; for example, by locating supplements on ridgetops and/or approximately 0.25 mile from riparian habitat. Placement of supplements near water sources, such as wells and reservoirs, would consider rangeland objectives, such as grazing distribution, wildlife habitat requirements, and reclamation success. Mineral supplement blocks would not be placed within 0.25 mile of an occupied sage-grouse lek. Mineral supplement blocks would not be placed within 0.25 mile of known Special Status Plant Species</p>	<p>size, and topography. In sage-grouse priority habitat, existing structural range improvements and location of supplements (salt or protein blocks) would be evaluated to make sure they conserve, enhance, or restore sage-grouse habitat.</p>	<p>grouse habitat based on proximity to lek, lek size, and topography. In sage-grouse priority and general habitat, existing structural range improvements and location of supplements (salt or protein blocks) would be evaluated to make sure they conserve, enhance, or restore sage-grouse habitat.</p>		

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>locations.</p> <p><u>Rawlins RMP:</u> New fence construction would be authorized according to BLM standards unless modified following consultation with affected parties. Existing fences would be modified according to current BLM standards and according to wildlife and livestock management needs.</p> <p><u>Green River RMP/JMH CAP:</u> Where documented wildlife conflicts with fencing on public lands occur, fences would be modified, reconstructed, or, if necessary, removed. Herding control of livestock would be encouraged as an alternative to fencing. Fence construction would be in accordance with BLM design standards and located so as not to overly impede wildlife movement. Consideration would also be given to special status species and wild horse movement.</p> <p><u>Green River RMP:</u> Livestock water developments and range improvements would be considered to maintain or improve resource conditions, enhance</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>livestock distribution, or both. Compatibility with special status plant species would be required. Water developments and/or range improvements proposed in sensitive areas would be considered only if wildlife habitat and resource conditions are maintained or improved and no significant or irreversible adverse effects would occur.</p> <p>Salt or nutritional supplements would be prohibited within 500 feet of riparian habitat and National Historic and Scenic Trails unless analysis shows that these resources would not be adversely affected. These supplements also would be prohibited on areas inhabited by special status plant species. Placement of supplements at least 500 feet away from wells, troughs, and other human-made water sources would be encouraged to better distribute livestock.</p> <p><u>JMH CAP:</u> Livestock water developments and range improvements would be considered to maintain or improve resource conditions, enhance livestock distribution, or</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>both. Compatibility with special status plant species would be required. Water developments and/or range improvements proposed in sensitive areas would be considered only if wildlife habitat and resource conditions were maintained or improved and no significant or irreversible adverse effects would occur.</p> <p>Salt or nutritional supplements would be prohibited within 500 feet of riparian habitat and National Historic and Scenic Trails unless analysis shows that these resources would not be adversely affected. These supplements also would be prohibited on areas inhabited by special status plant species. Placement of supplements at least 500 feet away from wells, troughs, and other human-made water sources would be encouraged to better distribute livestock.</p> <p><u>TBNG LRMP:</u></p> <p>Any fences or water developments that are not contributing in achieving desired conditions would be prioritized for removal.</p> <p>When installing new livestock water tanks, durable and effective</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>escape ramps for birds and small mammals would be installed. During maintenance of existing tanks, ramps that are ineffective or missing would be replaced.</p> <p>To help reduce disturbances to nesting sage-grouse, the following activities would be prohibited within 2.0 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., roads, water impoundments, oil and gas facilities), 2. Reclamation, 3. Gravel mining operations, 4. Drilling of water wells, Standard (Grassland Wide Direction) <p>To reduce disturbances to nesting sage-grouse, the following activities would not be authorized within 2.0 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., pipelines, utilities, fencing), Guideline (Grassland Wide Direction) <p>When constructing facilities or structures within 2 miles of a sage-grouse active</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>display ground, they would be designed to discourage raptor perching by maintaining a low profile or using perch inhibitors.</p> <p><u>BTNF LRMP:</u> Fish; Wildlife; and Sensitive Species Standard - Range improvements, management activities, and trailing would be coordinated with and designed to help meet fish and wildlife needs, especially on key habitat such as crucial winter range, seasonal calving areas, riparian areas, sage-grouse leks, and nesting sites. Special emphasis would be placed on helping to meet the needs of TES species.</p> <p>Allotment Management Plan Standard - Fisheries; riparian habitats; and TES species' needs would be addressed in allotment management plans.</p> <p>Fish; Wildlife; and Sensitive Species Standard - Range improvements, management activities, and trailing would be coordinated with and designed to help meet fish and wildlife needs, especially on key habitat such as crucial winter</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>range, seasonal calving areas, riparian areas, sage-grouse leks, and nesting sites. Special emphasis will be placed on helping to meet the needs of TES species.</p> <p>Form FS-2200-10b (Grazing Permit - Part 3) contains management practice requirements pertaining to livestock salting. Though none of the provisions found in recent permits directly address sage-grouse conservation measures, this section may be modified to stipulate such measures.</p> <p><u>MBNF LRMP:</u></p> <p>New disturbances such as construction, drilling, new recreation facilities, logging, or other concentrated intense activities would be prohibited. Short-term projects designed to improve habitat such as prescribed burning are permitted.</p> <p>Sage-grouse breeding complexes: March 1 - June 30; 2 miles: Fence density would be limited by allowing new fences only to facilitate protection, public safety, or habitat protection or enhancement. Stock tanks and similar features would, in all cases, be kept</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>out of the water influence zone if feasible and out of riparian areas and wetlands. Stock driveways would be kept out of the water influence zone except to cross at designated points. Water gaps would be hardened and stock crossing would be designated where needed and feasible. Salt and other supplements would be placed at least 0.25 mile from riparian areas and water developments unless specified otherwise in the allotment management plan or annual operating instructions.</p>				
Livestock Trailing					
54	<p><u>Casper RMP:</u> The revocation of withdrawals for those trails that are no longer active would be reviewed and recommended and these lands would be incorporated into adjacent allotments (46,050 acres). Grazing leases would be offered to the respective grazing lessees. All remaining SDW lands for trail use (55,680 acres) would be retained.</p> <p><u>Kemmerer RMP:</u> Current livestock trails would be retained.</p>	No similar action	<p>In addition to Alternative A: Grazing and trailing would be avoided within lekking, nesting, brood-rearing, and winter habitats during periods of the year when these habitats are utilized by sage-grouse.</p>	Same as Alternative A	<p>In addition to Alternative A: Livestock trailing that is authorized would include a trailing plan to utilize non-habitat to the extent possible, include specific routes and timeframes for trailing, utilize existing trails, and avoid stopovers on occupied leks, as appropriate.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Livestock trailing use would occur within 0.5 mile of the mapped centerline.</p> <p><u>Pinedale RMP:</u> Adequate stock trails would be maintained to support livestock trailing needs.</p>				
Riparian Area Management					
55	<p><u>Casper RMP:</u> Lotic and lentic wetland/riparian areas would be managed toward PFC.</p> <p>The BLM would manage toward PFC and identified DPC on 350 miles of lotic and adjacent riparian habitat and 10,000 acres of lentic habitat to meet fish, wildlife, and special status species habitat requirements.</p> <p><u>Kemmerer RMP:</u> Livestock conversions would be allowed in allotments with riparian concerns only when a plan is approved to address riparian issues. Management actions and range improvements proposed to address riparian issues would have to be implemented prior to authorizing the conversion. Livestock conversions may be approved only after completion of a suitability study for the conversion.</p>	<p>In addition to Alternative A: Within sage-grouse priority habitat, where riparian areas and wet meadows meet proper functioning condition or meet standards using other similar methodology (Forest Service only), the BLM/Forest Service would strive to attain reference state vegetation relative to the ESD.</p> <p>Riparian areas and wet meadows would be managed for proper functioning condition or other similar methodology (Forest Service only) within sage-grouse priority habitats.</p> <p>Within priority and general sage-grouse habitats, wet meadows would be managed to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood</p>	<p>In addition to Alternative A: Within sage-grouse priority habitat, where riparian areas and wet meadows meet proper functioning condition or meet standards using other similar methodology (Forest Service only), the BLM/Forest Service would strive to attain reference state vegetation relative to the ESD.</p> <p>Riparian areas and wet meadows would be managed for proper functioning condition or other similar methodology (Forest Service only) within sage-grouse priority habitats.</p> <p>Within sage-grouse priority and general habitats, wet meadows would be managed to maintain a component of perennial forbs with diverse species richness and productivity relative to site potential (e.g.,</p>	<p>In sage-grouse core habitats, to address a proven threat to sage-grouse conservation, balancing grazing between riparian habitats and upland habitats would be considered to promote the production and availability of beneficial forbs to Greater Sage-Grouse in meadows, mesic habitats, and riparian pastures for Greater Sage-Grouse use during nesting and brood-rearing while maintaining upland conditions and functions. Through a full range of grazing management strategies for livestock, wildlife, and wild horses, changes to season-of-use in riparian/wetland areas before or after the hot growing season would be considered.</p>	<p>In Addition to Alternative A: Grazing between riparian habitats and upland habitats would be balanced to promote the production and availability of beneficial forbs to Greater Sage-Grouse for use during nesting and brood-rearing. Grazing in meadows, mesic habitats, and riparian pastures also would be balanced to promote the production and availability of beneficial grasses and forbs for use during late brood-rearing within core habitat areas, while maintaining upland conditions and functions.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>The conversion may be authorized if it is determined that riparian habitats will be maintained or improved by the conversion.</p> <p><u>Pinedale RMP:</u> Meet the Wyoming Standards for Rangeland Health and maintain or enhance wetland and riparian vegetation to achieve Proper Functioning Condition.</p> <p>Grazing systems will be designed to maintain or improve watershed and range condition; for example, through changing seasons of use, implementing rotational or other grazing management systems, or developing infrastructure for livestock management.</p> <p>In allotments with riparian habitat, grazing management actions will be designed to maintain or achieve proper functioning condition.</p> <p><u>Green River RMP:</u> 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</p>	<p>rearing. Also these wet meadow complexes would be conserved or enhanced to maintain or increase the amount of edge and cover within that edge to minimize elevated mortality during the late brood rearing period.</p> <p>Within sage-grouse priority habitat, hot season grazing on riparian and meadow complexes would be reduced to promote recovery or maintenance of appropriate vegetation and water quality.</p> <p>Fencing/herding techniques, seasonal use, or livestock distribution changes would be utilized to reduce pressure on riparian or wet meadow vegetation used by sage-grouse in the hot season (summer).</p>	<p>reference state) to facilitate brood rearing. At least 6 inches of stubble height must remain on all riparian/meadow area herbaceous species at all times. Also these wet meadow complexes would be conserved or enhanced to maintain or increase the amount of edge and cover within that edge to minimize elevated mortality during the late brood-rearing period.</p>		

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>may be implemented in "I" and "M" category allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy.</p> <p><u>JMH CAP:</u></p> <p>Implementation of grazing management systems will assist in improving or maintaining the desired range condition. Approved AMPs, or other activity plans intended to serve as the functional equivalent to an AMP, for each of the designated grazing allotments will provide the necessary guidance for achieving grazing management objectives.</p> <p>Appropriate actions for improving degraded rangeland and riparian habitat (i.e., meeting Wyoming Standards for Healthy Rangelands (BLM 1997a)) could include, but will not be limited to, reduction of permitted animal unit months (AUM), modified turnout dates, livestock water developments, range improvements, modified grazing periods, growing season rest, riparian pastures, exclosures, implementation of forage utilization levels, and</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>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.</p> <p><u>TBNG LRMP:</u> During vegetation management practices, maintain or enhance wet and sub-irrigated meadows, seeps, riparian habitats, and other wetland areas that occur in or adjacent to sage-grouse habitat as quality sage-grouse foraging areas during the spring, summer, and fall.</p> <p><u>BTNF LRMP:</u> Objective 4.3 - Protect and rehabilitate riparian areas to retain and improve their value for fisheries, aquatic habitat, wildlife, and water quality.</p> <p><u>MBNF LRMP:</u> Manage livestock grazing in riparian areas and wetlands using “best management practices.” The following Watershed Conservation Practices are interrelated and should be considered and implemented as a</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>complete package where feasible:</p> <ol style="list-style-type: none"> 1. Apply short duration grazing, as feasible (generally 20-30 days), to provide greater opportunity for regrowth and to avoid utilization of woody species. 2. Design grazing systems to limit utilization of woody species. Move livestock from riparian areas and wetlands when they begin to have a preference for woody species, especially plants in the young maturity classes. 3. Keep stock tanks and similar features out of the water influence zone if feasible and out of riparian areas and wetlands always. 4. Keep stock driveways out of the water influence zone except to cross at designated points. Harden water gaps and designated stock crossing where needed and feasible. 				
56	<p><u>Green River RMP:</u> Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to</p>	<p>In addition to Alternative A: Within sage-grouse priority habitats, new water developments for diversion from spring or seep source would be</p>	<p>In addition to Alternative A: No new water developments for diversion from spring or seep sources would be authorized within sage-</p>	<p>In addition to Alternative A: Within sage-grouse core habitats, water developments would be authorized as needed to support grazing</p>	<p>Range improvement projects would be planned and authorized on BLM and National Forest System Lands in a way that contributes to rangeland health and</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>benefit livestock, wild horses, and wildlife. Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution.</p> <p><u>JMH CAP:</u> Livestock water developments and range improvements will be considered to maintain or improve resource conditions, enhance livestock distribution, or both. Compatibility with special status plant species will be required. Water developments and/or range improvements proposed in sensitive areas (Map 4) will be considered only if wildlife habitat and resource conditions are maintained or improved and no significant or irreversible adverse effects will occur.</p> <p><u>BTNF LRMP:</u> Allotment Management Plan Standard - Fisheries; riparian habitats; and TES species' needs will be addressed in allotment management plans.</p> <p><u>MBNF LRMP:</u> Keep stock tanks and similar features out of the</p>	<p>authorized only when priority sage-grouse habitat would benefit on both upland and riparian habitat from the development or when there are no negative impacts to sage-grouse. This would include developing new water sources for livestock as part of an AMP/conservation plan to improve sage-grouse habitat.</p>	<p>grouse priority and general habitats.</p>	<p>objectives.</p>	<p>maintains and/or improves Greater Sage-Grouse and its habitat.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	water influence zone if feasible and out of riparian areas and wetlands always.				
57	<p><u>BTNF LRMP:</u> Allotment Management Plan Standard - Fisheries; riparian habitats; and TES species' needs will be addressed in allotment management plans. Priority 1 validation monitoring of riparian areas: Conduct a level III riparian evaluation...and level II riparian evaluation on stocked allotments...with key riparian values to solve site specific problems and/or to assess impacts of management activities on riparian resources. Further evaluation or change in management required when riparian area management objectives are not met.</p> <p><u>TBNG LRMP:</u> Manage livestock grazing to maintain or improve riparian/woody draw areas. Implement the following practices: Avoid season-long grazing and activities, such as feeding, salting, herding, or water developments, which concentrate livestock in riparian/woody draw areas. Control the timing,</p>	<p>In addition to Alternative A: Springs, seeps and associated pipelines would be analyzed to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within sage-grouse priority habitats. Modifications would be made where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to sage-grouse.</p>	<p>In addition to Alternative A: Springs, seeps and associated water developments would be analyzed to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within-sage-grouse habitats. Modifications would be made where necessary, including dismantling water developments.</p>	<p>In addition to Alternative A: Existing water developments would be maintained or modified to support grazing objectives.</p>	<p>In addition to Alternative A: Existing water developments associated with springs and seeps would be evaluated and associated pipelines/structures to those developments having a negative effect on sage-grouse core habitats would be modified.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	duration, and intensity of grazing in riparian areas to promote establishment and development of woody species.				
Minerals Management					
Exceptions to lease stipulations, Conditions of Approval, and terms and conditions					
58	<p>Exceptions, waivers, and modifications to lease stipulations, COAs, and terms and conditions (T&C), etc. for sage-grouse will continue to be considered on a case-by-case basis consistent with approved LUPs.</p> <p><u>TBNG LRMP:</u> Exceptions to lease stipulations, COAs, and T&Cs, etc. for sage-grouse will continue to be considered on a case-by-case basis consistent with approved stipulations in Appendix D of the TBNG LRMP.</p> <p><u>MBNF LRMP:</u> Exceptions to lease stipulations, COAs, and T&Cs, etc. for sage-grouse will continue to be considered on a case-by-case basis consistent with approved stipulations in Appendix E of the MBNF LRMP.</p>	<p>Exceptions, waivers, and modifications to lease stipulations, COAs, and T&Cs for sage-grouse would not be considered within sage-grouse priority habitat.</p>	<p>Exceptions, waivers, and modifications to lease stipulations, COAs, and T&Cs for sage-grouse would not be considered within sage-grouse priority and general habitat.</p>	<p>Exceptions waivers, and modifications to lease stipulations, COAs, and T&Cs, etc., for sage-grouse would continue to be considered on a case-by-case basis consistent with approved LUPs and other BLM/Forest Service policy and regulations as they relate to exceptions within sage-grouse core and general habitat.</p>	Same as Alternative D
Fluid Minerals Unleased Estate					
59	No similar action	No similar action	Any oil, gas, or	No similar action	No similar action

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
			<p>geothermal activity would be conducted to maximize avoidance of impacts, based on evolving scientific knowledge of impacts.</p>		
60	<p>Fluid mineral leasing would be allowed in sage-grouse core habitat areas, except in areas that are unavailable for leasing due to the need to protect other sensitive resources (Map 2-4).</p>	<p>Priority sage-grouse habitat areas would be closed to fluid mineral leasing (Map 2-5). An exception would be considered when there is an opportunity for the BLM and Forest Service to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (i.e., checkerboard ownership). In this case, a plan amendment may be developed that opens the priority area for new leasing. The plan must demonstrate long-term population increases in the priority area through mitigation (prior to issuing the lease) including lease stipulations, offsite mitigation, etc., and avoid short-term losses that put the sage-grouse population at risk from stochastic events leading to extirpation.</p>	<p>Sage-grouse priority and general habitat areas would be closed to fluid mineral leasing (Map 2-6). An exception would be considered when there is an opportunity for the BLM/Forest Service to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (i.e., checkerboard ownership). In this case, a plan amendment may be developed that opens sage-grouse habitat for new leasing. The plan must demonstrate long-term population increases in the priority area through mitigation (prior to issuing the lease) including lease stipulations, and off-site mitigation, and avoid short-term losses that put the sage-grouse population at risk from stochastic events leading to extirpation. Upon expiration or termination of existing leases, nominations/expressions of interest for parcels within sage-</p>	<p>The agencies would allow oil and gas leasing consistent and subject to the leasing stipulations analyzed in the timing, distance, disturbance, and density restrictions sections. In addition to Alternative A: Fluid mineral leasing would be administratively unavailable in the following special management or higher sage-grouse core habitat areas (Map 2-7):</p> <ol style="list-style-type: none"> 1. Newcastle RMP: Raven Creek (79,640 total acres) 2. Pinedale RMP: Beaver Ridge, Fontenelle Creek, and East Anticline (39,860 total acres). <p>As existing fluid mineral leases expire in the areas listed above, they would not be re-offered for lease.</p>	<p>In addition to Alternative A: The agencies would allow oil and gas leasing consistent and subject to the leasing stipulations analyzed in the timing, distance, disturbance, and density restrictions sections (Map 2-8).</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
			grouse priority and general habitat would not be accepted.		
61	A minimum lease size will not be applied within sage-grouse core habitat areas.	Same as Alternative A	Same as Alternative A	Same as Alternative A	A minimum lease size of 640 contiguous acres of federal mineral estate would be applied within sage-grouse core habitat areas. Smaller parcels may be leased only when 640 contiguous acres of federal mineral estate is not available and leasing is necessary to remain in compliance with laws, regulations and policy; for example, to protect the federal mineral estate from drainage or to commit the federal mineral estate to unit or communitization agreements.
62	<u>Casper RMP:</u> The blocks of public land identified as mapped in the Casper Field Office GIS database will be managed to retain intact blocks of native vegetation (192,550 acres, of which 131,880 acres are BLM-administered surface). In these areas, the following restrictions apply: 1. These blocks are (1) administratively unavailable for oil and gas leasing and (2) a	In addition to Alternative A: Geophysical exploration would be allowed within sage-grouse priority habitat areas to obtain exploratory information for areas outside of and adjacent to sage-grouse priority habitat areas. Geophysical operations would be allowed using only helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other	In addition to Alternative A: No new geophysical exploration permits would be issued within priority and general sage-grouse habitat. An exception to this for the purposes of recognizing valid existing rights would be the following: Geophysical exploration would be allowed within priority and general sage-grouse habitat areas to	Same as Alternative A	In addition to Alternative A (except for the actions pertaining to the BTNF): Geophysical exploration projects that are designed to minimize habitat fragmentation within sage-grouse core habitat would be allowed, except were prohibited or restricted by existing LUP decisions. <u>BTNF LRMP:</u> Seismic Activity Standard - Helicopter-access seismic activity would be

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>geophysical operation on public surface for the life of the plan. Activities for existing oil and gas leases are managed intensively (see Appendix U of the Casper RMP). Existing leases will be allowed to expire and not be renewed.</p> <p>2. Within these blocks, a withdrawal from the operation of the public land laws, including the mining laws will be pursued.</p> <p>3. These blocks are closed to mineral material disposal. Existing permits will be allowed to expire without renewal or expansion.</p> <p>4. These blocks are not open to wind/renewable energy development.</p> <p>5. These blocks remain open to livestock grazing.</p> <p>6. All allowed surface-disturbing activities within the designated blocks are subject to a CSU restriction, minimizing surface disturbance to meet management objectives. Decision 4024</p> <p>The North Platte River SRMA will continue to be</p>	<p>approved methods conducted in accordance with seasonal timing limitations and other restrictions that may apply.</p>	<p>obtain exploratory information for areas outside of and adjacent to priority and general sage-grouse habitat areas. Geophysical operations would be allowed by only using helicopter-portable drilling methods and in accordance with seasonal timing restrictions and/or other restrictions that may apply.</p> <p>Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood rearing, and winter habitats during their season of use by sage-grouse.</p>		<p>permitted. Seismic Activity Termination Guideline - Seismic activity should be seasonally restricted.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>open to oil and gas leasing and geophysical operations. Decision 7039</p> <p>The area is administratively unavailable for oil and gas leasing and geophysical exploration is not allowed. Decision 7047</p> <p>The MA is administratively unavailable for new oil and gas leasing. No geophysical operations will be allowed on public surface.</p> <p>Activities on existing leases will be managed intensively to meet the objectives of the MA (see Appendix U of the Casper RMP– Intensive Management). To minimize surface-disturbing activities, oil and gas exploration and development will use directional drilling techniques and well twinning whenever practicable. Decision 7059</p> <p>The Red Wall/Gray Wall complex is located entirely within the South Bighorns/Red Wall MA and is administratively unavailable for new oil and gas leasing. No geophysical operations will be allowed on public surface. Activities on existing leases will be intensively managed to meet the objectives of the</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>MA (see Appendix U of the Casper RMP– Intensive Management). To minimize surface-disturbing activities, oil and gas exploration and development will use directional drilling techniques and well twinning whenever practicable. Decision 7063</p> <p>Those lands currently open to oil and gas leasing will continue to be open to geophysical operations. Those lands open to oil and gas leasing, but subject to an NSO restriction, may be open to geophysical operations should site specific NEPA analysis disclose a finding of no significant impact. No geophysical operations are allowed in areas administratively unavailable for oil and gas leasing. Decision 2019</p> <p><u>Kemmerer RMP:</u> Allow for geophysical exploration on lands throughout the planning area subject to identified conditions of approval.</p> <p><u>Newcastle RMP:</u> Surface-disturbing and disruptive activities associated with all types of minerals exploration and development and with</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>geophysical exploration will be subject to appropriate mitigation measures determined through, but not limited to, use of the Wyoming BLM Mitigation Guidelines.</p> <p><u>Pinedale RMP:</u></p> <p>Vehicle-based geophysical activities will be assessed on a case-by-case basis.</p> <p>The use of surface and/or above-ground (Poulter shot) explosive charges for geophysical exploration will be assessed case by case.</p> <p>Geophysical projects, including projects proposed in areas with an NSO restriction, will be analyzed and mitigation developed on a case-by-case basis.</p> <p>Geophysical activities that are considered casual use actions are allowed within 0.25 mile of active sage-grouse leks provided that:</p> <p>Operations are conducted on designated roads and trails.</p> <p>Operations during the breeding season (March 1 through May 15) are conducted between the hours of 8:00 a.m. and 8:00 p.m.</p> <p>A 150-foot wide strip of undisturbed sagebrush is maintained around the</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>perimeter of the lek for hiding and escape cover.</p> <p><u>Rawlins RMP:</u> All lands open to oil and gas leasing consideration will also be open to geophysical exploration, subject to appropriate resource surveys, surface protection measures, adequate bonding, and adherence to State of Wyoming standards for geophysical operations. Vehicular use for "necessary tasks" (as defined in the glossary), such as geophysical exploration including project survey and layout, will be permitted except where specifically prohibited (e.g., some SD/MAs).</p> <p><u>Green River RMP:</u> Geophysical exploration (vehicles and detonation) activities will be prohibited within 0.5 mile of the Pinnacles Geologic Feature. Areas of sensitive heritage resources and geologic features, such as Boars Tusk, White Mountain Petroglyphs, special status plant species, WSAs, and historic trails, will remain closed. Receiver lines may be laid using foot traffic</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>within these areas. Exceptions to these restrictions may be granted on a case-by-case basis subject to appropriate site-specific analysis and mitigation requirements.</p> <p>The remainder of the planning area will be open to geophysical exploration, with application of appropriate mitigation. Rights-of-way limitations in the planning area apply to on- and off-road vehicle traffic used for geophysical activities. Exploration activities will be allowed in sensitive resource areas only if they can be performed with acceptable mitigation of impacts.</p> <p><u>JMH CAP:</u></p> <p>Geophysical exploration (vehicles and detonation) activities will be prohibited within 0.5 mile of the Pinnacles Geologic Feature. Areas of sensitive heritage resources and geologic features, such as Boars Tusk, White Mountain Petroglyphs, special status plant species, WSAs, and historic trails, will remain closed. Receiver lines may be laid using foot traffic within these areas. Exceptions to these restrictions may be granted</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>on a case-by-case basis subject to appropriate site-specific analysis and mitigation requirements.</p> <p>The remainder of the planning area will be open to geophysical exploration, with application of appropriate mitigation.</p> <p>Rights-of-way limitations in the planning area apply to on- and off-road vehicle traffic used for geophysical activities. Exploration activities will be allowed in sensitive resource areas only if they can be performed with acceptable mitigation of impacts.</p> <p><u>BTNF LRMP:</u></p> <p>Seismic Activity Standard - Helicopter-access seismic activity will be permitted.</p> <p>Seismic Activity Termination Guideline - Seismic activity may be seasonally restricted.</p> <p><u>TBNG LRMP:</u></p> <p>Where no suitable mitigation measures are possible, prohibit geophysical (seismic) operations that cause surface disturbance in Research Natural Areas, Special Interest Areas, American Indian traditional use area, and known National Register eligible sites.</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Minimize surface and other resource disturbance from geophysical operations.</p> <p>Do not allow new road construction, unless alternatives have been assessed and determined to be more environmentally damaging.</p> <p><u>MBNF LRMP:</u></p> <p>Where no effective mitigation measures are possible, prohibit geophysical (seismic) operations that cause surface disturbance in Research Natural Areas, Special Interest Areas, Recommended Wilderness, recommended Wild and Scenic Rivers, American Indian traditional use areas and known National Register sites.</p> <p>Minimize surface and other resource disturbance from geophysical operations.</p>				
63	<p><u>Kemmerer RMP:</u></p> <p>Choose and implement appropriate mitigation in a timely manner to minimize decreases in habitat function.</p> <p>Utilize appropriate voluntary offsite compensatory mitigation to reduce impacts. This would be necessary if (1) all onsite mitigation has been</p>	<p>In addition to Alternative A:</p> <p>In cases where federal oil and gas leases have been issued without adequate stipulations for the protection of sage-grouse or their habitats being provided in the applicable LUP decision, as revised or amended, their inclusion as permit COAs would be considered when</p>	<p>In addition to Alternative A:</p> <p>In cases where federal oil and gas leases have been issued without adequate stipulations for the protection of sage-grouse or their habitats being provided in the applicable LUP decision, as revised or amended, their inclusion as permit COAs would be considered when</p>	<p>In addition to Alternative A:</p> <p>The BLM/Forest Service would work with project proponents in these situations to promote measurable sage-grouse conservation objectives such as, but not limited to, consolidation of project related infrastructure to reduce habitat fragmentation and loss</p>	<p>In addition to Alternative A:</p> <p>In cases where federal oil and gas leases have been issued with stipulations varying from those in Appendix E for the protection of sage-grouse or their habitats being provided in the applicable LUP decision, as revised or amended, their inclusion as permit COAs</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>accomplished and adverse effects have not been mitigated; or (2) if onsite mitigation is not feasible.</p> <p><u>Pinedale RMP:</u> Offsite mitigation proposed by oil and gas or other operators could be considered and analyzed in future environmental documents as mitigation for proposed activities within the planning area. Proposed offsite mitigation will be described and analyzed for effectiveness in detail on a project-specific basis. Offsite mitigation would conform to requirements in the Pinedale RMP regarding the order of use of mitigation methods, stipulations applied to offsite mitigation measures, and priority order for mitigating resource impacts onsite or offsite.</p> <p><u>Green River RMP:</u> Development actions will be analyzed on a case-by-case basis to identify mitigation needs to meet RMP objectives, provide for resource protection, and provide for logical development. Limitations on the amount, sequence, timing, or level of development may occur. This may result in</p>	<p>approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5 and 36 CFR 228.108), including appropriate documentation of compliance with NEPA.</p> <p>Overall consideration would be given to minimizing the impact to sage-grouse through a project design that avoids, minimizes, reduces, rectifies, and/or adequately compensates for direct and indirect impacts to sage-grouse habitat or use and includes applicable and technically COAs. Selection and application of these measures would be based on current science and research on the effects to important breeding, nesting, brood-rearing, and wintering areas.</p> <p>For proposed operations in priority habitat areas, the Surface Use Plan of Operations (see 43CFR 3162.3-1(f)) would address, at a minimum, the anticipated noise, density and amount of disturbance, mechanical movement (e.g., pump jacks), permanent and</p>	<p>approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5 and 36 CFR 228.108), including appropriate documentation of compliance with NEPA.</p> <p>In this process, the following, among other things, would be evaluated:</p> <ol style="list-style-type: none"> 1. Whether the conservation measure is "reasonable" (43 CFR § 3101.1-2) with the valid existing rights 2. Whether the action is in conformance with the approved RMP. 	<p>and to promote effective conservation of seasonal habitats and connectivity areas that support population management objectives set by the state. The BLM/Forest Service would continue to work with project proponents (including those from within the BLM/Forest Service) and the WGFD to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats and resources whether inside or outside of sage-grouse core habitat areas. Valid existing rights will be recognized and respected.</p>	<p>would be considered when approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5 and 36 CFR 228.108), including appropriate documentation of compliance with NEPA.</p> <p>Overall consideration shall be given to minimizing the impact to sage-grouse through a project design that avoids, minimizes, reduces, rectifies, and/or adequately compensates for direct and indirect impacts to sage-grouse core habitat or use and includes applicable and technical COAs. Selection and application of these measures shall be based on current science and research on the effects to important breeding, nesting, brood-rearing, and wintering areas. For proposed operations in core habitat areas, the Surface Use Plan of Operations (see 43CFR 3162.3-1(f)) shall address, at a minimum, the anticipated noise, density and amount of disturbance, mechanical movement (e.g., pump jacks), permanent and temporary facilities, traffic, phases of development</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>transportation planning and in limitations in the number of roads and drill pads, or deferring development in some areas until other areas have been restored to previous uses.</p> <p><u>JMH CAP:</u> COAs attached to an Application for Permit to Drill (APD) will be based on site-specific NEPA or other analysis and will establish specific, necessary mitigation measures not covered by stipulations for resource and environmental protection. Some areas will need more intensive mitigation measures to protect sensitive resources and provide for public health and safety. These intensive mitigation measures or COAs will mostly apply to areas with overlapping sensitive resources (e.g., Areas 2 and 3). Examples of intensive mitigation that can apply to all activities based on site-specific analysis include offsite placement of facilities, remote control monitoring, restricted or prohibited surface use including road construction, multiple wells from a single pad, central tank batteries/facilities, and pipelines and power lines</p>	<p>temporary facilities, traffic, phases of development over time, offsite mitigation, and expected periods of use associated with the proposed project. Seasonal habitats or project features related to potential sage-grouse impacts that are not addressed in the SUPO based on site-specific or project-specific considerations shall be noted in the project file, along with a rationale for not including them.</p> <p>In this process, the following, among other things, would be evaluated:</p> <ol style="list-style-type: none"> 1. Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) and consistent with valid existing rights 2. Whether the action is in conformance with the approved LUP; and the effectiveness of the proposed mitigation measures. <p>BLM/Forest Service Field Offices/District Offices would work with project proponents in these situations to promote measurable sage-grouse conservation objectives such as but not limited to</p>			<p>over time, offsite mitigation, and expected periods of use associated with the proposed project. Seasonal habitats or project features related to potential sage-grouse impacts that are not addressed in the SUPO based on site-specific or project-specific considerations shall be noted in the project file, along with a rationale for not including them.</p> <p>In this process the BLM/Forest Service would evaluate, among other things:</p> <ol style="list-style-type: none"> 1. Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) and consistent with valid existing rights 2. Whether the action is in conformance with the approved LUP; and the effectiveness of the proposed mitigation measures. <p>The BLM/Forest Service would work with project proponents in these situations to promote measurable sage-grouse conservation objectives such as, but not limited to, consolidation of project related infrastructure to reduce habitat</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>concentrated in specific areas. In addition, refer to Section 3.12.3 for additional mitigation measures that may apply as part of the transportation plan.</p>	<p>consolidation of project related infrastructure to reduce habitat fragmentation and loss and to promote effective conservation of seasonal habitats and connectivity areas that support population management objectives set by the State. BLM/Forest Service would continue to work with project proponents (including those from within the BLM/Forest Service) and the WGFD to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats and resources whether inside or outside of priority habitat areas. Valid existing rights would be recognized and respected.</p>			<p>fragmentation and loss and to promote effective conservation of seasonal habitats and connectivity areas that support population management objectives set by the State.</p> <p>The BLM/Forest Service would continue to work with project proponents (including those from within the BLM/Forest Service) and the WGFD to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats (based on vegetation, topography, or other habitat features) and resources whether inside or outside of core habitat areas. Valid existing rights would be recognized and respected.</p>
64	<p>Field Offices would work with project proponents (including those within BLM/Forest Service) to site their projects in locations that minimize impacts to sensitive resources.</p>	<p>In addition to Alternative A: If the lease is partially or entirely within priority habitat areas, subject to topographic and other environmental constraints, any development within priority habitat would be required to be placed in the area least harmful to sage-grouse based on vegetation, topography, or</p>	No similar action	Same as Alternative A	Same as Alternative A

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		other habitat features.			
Fluid Minerals Leased Estate					
65	No similar action	In sage-grouse priority habitat, the following conservation measures would be provided as terms and conditions of the approved RMP: Do not allow new surface occupancy on federal leases within priority habitats, this includes winter concentration areas during any time of the year. Consider an exception: If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek.	Same as Alternative B	No similar action	No similar action
66	No similar action	To ensure comprehensive planning relative to sage-grouse conflicts, Master Development Plans would be completed during planning and review of projects involving multiple proposed disturbances within a lease or priority habitat area, without an exception for individual wildcat (exploratory) wells.	Same as Alternative B	Master development plans would not be required.	Master Development Plans would be considered and encouraged for projects involving multiple proposed disturbances within core habitat area.
67	No similar action	Within sage-grouse priority habitat, unitization would be required when deemed necessary for proper development and operation of an area (with strong oversight and monitoring) to minimize	Same as Alternative B	Within sage-grouse core habitat, unitization for the orderly development of the mineral resource would be used.	Within sage-grouse core habitat, unitization would be encouraged as a means of minimizing adverse impacts to sage-grouse to reduce fragmentation and surface disturbing and disruptive

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		adverse impacts to sage-grouse according to the Federal Lease Form, 3100-11, Sections 4 and 6.			activities.
68	The BLM/Forest Service should closely examine the applicability of categorical exclusions in core and general Greater Sage-Grouse habitat. If extraordinary circumstances review is applicable, the BLM/Forest Service should determine whether those circumstances exist.	The BLM/Forest Service would closely examine the applicability of categorical exclusions in priority habitat. If extraordinary circumstances review is applicable, BLM/Forest Service should determine whether those circumstances exist.	Same as Alternative A	Same as Alternative A	Same as Alternative A
69	Federal Regulations, 43 CFR 3104.1 requires that a bond be furnished before any drilling or surface disturbance activities begin. The lessee, sublessee or the operator must furnish a surety or personal bond in the amount of at least \$10,000 to ensure compliance with all the lease terms, including protection of the environment. With the consent of the surety and principal, the operator may use the bond of another party, such as the lessee. Each time there is a new operator, that operator must notify BLM/Forest Service that he/she is the responsible operator, giving the particulars of the	For future actions, a full reclamation bond specific to the site would be required in accordance with 43 CFR 3104.2, 3104.3 and 3104.5, and 36 CFR 228.109. The BLM/Forest Service would insure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000, Hagen et al. 2007) that would result in full restoration of the lands to the condition it was found prior to disturbance. The reclamation costs would be based on the assumption that contractors for the BLM or Forest Service would perform the work.	Same as Alternative B	Same as Alternative A	A reclamation bond would be required on all projects that is commensurate with the scope, scale, size of the project within sage-grouse core habitat. Partial bonding may be appropriate depending on these factors.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>bond under which he/she will operate. BLM/Forest Service can require an increase in a bond amount any time conditions warrant such an increase.</p> <p>Per 36 CFR 228.109, as part of the review of a proposed surface use plan of operations, the authorized Forest officer shall consider the estimated cost to the Forest Service to reclaim those areas that would be disturbed by operations and to restore any lands or surface waters adversely affected by the lease operations after the abandonment or cessation of operations on the lease. If at any time prior to or during the conduct of operations, the authorized Forest officer determines the financial instrument held by the Bureau of Land Management is not adequate to ensure complete and timely reclamation and restoration, the authorized Forest officer shall give the operator the option of either increasing the financial instrument held by the Bureau of Land Management or filing a separate instrument with the Forest Service in the amount deemed adequate</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	by the authorized Forest officer to ensure reclamation and restoration. The authorized Forest officer shall consider the costs of the operator's proposed reclamation program and the need for additional measures to be taken when estimating the cost to the Forest Service to reclaim the disturbed area.				
70	<u>Pinedale RMP:</u> Produced water from coalbed natural gas (CBNG) wells will be treated and disposed of in collaboration and consistent with the requirements of the state.	No similar action	Prohibit the construction of evaporation or infiltration reservoirs to hold coalbed methane wastewater.	No similar action	Same as Alternative A
71	<u>Pinedale RMP:</u> BLM-permitted actions on split estate lands are subject to the same stipulations as leased federal mineral estate on federal surface lands, provided the stipulations do not adversely affect the surface owner's land use or actions. Exceptions to surface development restrictions could be granted if requested or agreed to by the surface owner.	Where the federal government owns the mineral estate and the surface is non-federal ownership, the same conservation measures would be applied as those applied on public land.	Same as Alternative B	Same as Alternative A	In addition to Alternative A: Where the federal government owns the mineral estate and the surface is under non-federal ownership, the BLM/Forest Service would work cooperatively with the surface owner to apply the same sage-grouse conservation measures as applied on public land on a voluntary basis, for core and general habitat.
72	<u>MBNF LRMP:</u> Negotiate surface	Where the federal government owns the	Same as Alternative B	Same as Alternative A	In addition to Alternative A:

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	management for private oil and gas minerals with the owner and operator to be as close as possible to the standards used for federal minerals.	surface and the mineral estate is in non-federal ownership, appropriate BMPs would be applied to surface development.			Where the federal government owns the surface, and the mineral estate is in under non-federal ownership, the BLM/Forest Service would work cooperatively with permittees, leasees and other surface landowners to negotiate and apply the same sage-grouse conservation measures as applied on public land within core and general habitat. Appropriate design features would be applied to mitigate surface disturbance.
73	No similar action	No similar action	Agencies would explore options to amend, cancel, or buy out leases in ACECs and sage-grouse priority and general habitat.	No similar action	No similar action
74	No similar action	No similar action	Conditions that require relinquishment of leases/authorizations would be included if doing so would: 1) mitigate the impact of a proposed development, or 2) mitigate the unanticipated impacts of an approved development.	No similar action	No similar action
Solid Leasable Minerals					
75	<u>Casper RMP:</u> If coal development potential is shown to exist,	In addition to Alternative A: In sage-grouse priority	Same as Alternative B	In addition to Alternative A: Upon receipt of a coal	Same as Alternative D

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>all BLM-administered lands outside the Coal Development Potential Area (CDPA) will be considered for coal leasing, unless specifically closed to mineral leasing. The coal-screening process will be completed on all newly identified lands having coal development potential.</p> <p>All BLM-administered lands within the CDPA identified in the 2001 Buffalo RMP maintenance action are acceptable for further consideration for coal leasing. The only exceptions are those lands determined unacceptable within the area. The coal unsuitability criteria are re-evaluated whenever new coal lease applications are received.</p> <p><u>Kemmerer RMP:</u> Process new coal lease applications by using the coal screening process. The coal screening process results will determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis would be required prior to leasing. Federal land within the proposed Haystack project area is determined acceptable for further</p>	<p>habitat, find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5.</p> <p>In general habitat, apply minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal sage-grouse habitats. Apply these measures during activity-level planning.</p> <p>Use additional, effective mitigation to offset impacts as appropriate (determined by local options/needs).</p>		<p>lease application in sage-grouse core areas, 43 CFR 3461.5, Criterion 15 would be applied and the area would be identified as suitable for further coal leasing consideration after consultation with the state and where applicable, surface management agency, to determine that all or certain stipulated methods of coal mining will not have a significant long-term impact on the sage-grouse. Special conditions could be required as identified during the leasing process to protect sage-grouse resources.</p>	

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>consideration for coal leasing and development. No coal LBAs will be considered for Rock Creek/Tunp and Bear River Divide management areas.</p> <p><u>Pinedale RMP:</u> Decisions on lands acceptable for leasing consideration for coal development will be made after an application is received and the coal screening process is conducted.</p> <p><u>Rawlins RMP:</u> Federal coal lease applications will be accepted only on those federal coal lands with development potential identified as suitable for further leasing consideration after application of the coal unsuitability criteria (the above-mentioned approximately 51,250 acres and 2,318.7 million tons of surface minable federal coal).</p> <p><u>Green River RMP/JMH CAP:</u> Federal coal lands within the Coal Occurrence and Development Potential area (about 422,000 acres) are open to further consideration for coal leasing and development</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>(i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses.</p> <p><u>BTNF LRMP:</u> Coal Leasing Standard - Coal leasing will be allowed. Strip mining will not be permitted unless no other mining options exist. Numerous areas closed to leasing of solid minerals.</p>				
76	<p><u>Casper RMP:</u> If coal development potential is shown to exist, all BLM-administered lands outside the CDPA will be considered for coal leasing, unless specifically closed to mineral leasing. The coal-screening process will be completed on all newly identified lands having coal development potential. All BLM-administered lands within the CDPA identified in the 2001 Buffalo RMP maintenance action are acceptable for further consideration for coal leasing. The only exceptions are those lands</p>	<p>In addition to Alternative A: No new underground mining leases would be granted unless all surface disturbances (appurtenant facilities) are placed outside of the sage-grouse priority habitat area. Where new appurtenant facilities associated with the existing lease cannot be located outside the sage-grouse priority habitat area, new facilities would be co-located within existing disturbed areas. If this is not possible, any new appurtenant facilities would be constructed to</p>	Same as Alternative B	Same as Alternative A	<p>In addition to Alternative A: Upon receipt of a coal lease application proposing underground mining methods that include surface operations and impacts within sage-grouse core habitat areas, Criterion 15 would be applied and the area would be identified as suitable for further coal leasing consideration after consultation with the state and, where applicable, surface management agency to determine that all or certain stipulated methods of coal mining</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>determined unacceptable within the area. The coal unsuitability criteria are re-evaluated whenever new coal lease applications are received.</p> <p><u>Kemmerer RMP:</u> Process new coal lease applications by using the coal screening process. The coal screening process results will determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis would be required prior to leasing. Federal land within the proposed Haystack project area is determined acceptable for further consideration for coal leasing and development. No coal LBAs will be considered for Rock Creek/Tunp and Bear River Divide management areas.</p> <p><u>Pinedale RMP:</u> Decisions on lands acceptable for leasing consideration for coal development will be made after an application is received and the coal screening process is conducted.</p> <p><u>Rawlins RMP:</u> Federal coal lease applications will be</p>	<p>the absolute minimum standard necessary.</p> <p>Where BLM/Forest Service identifies development of coal using underground mining methods, the BLM/Forest Service would consider the potential surface operations and surface impacts, and unsuitability Criterion No. 15 applies, the lands would be assessed as unsuitable unless the surface management agency finds that a relevant exception or exemption applies. See 43 CFR 3461.1(b).</p>			<p>will not have a significant long-term impact on sage-grouse. Stipulated methods may include, but not limited to, underground mining methods with no placement of surface facilities.</p> <p>Unsuitability is not applied to underground operations without surface impacts (43 CFR 3461.1) This would be consistent with IM WY WY-2012-019 says that the BLM/Forest Service will assess potential impacts to sage-grouse through the NEPA process, and that the State regulatory agency would apply this mitigation, as well protective measures consistent with the State Policy for solid leasable mining action at the permitting stage.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>accepted only on those federal coal lands with development potential identified as suitable for further leasing consideration after application of the coal unsuitability criteria (the above-mentioned approximately 51,250 acres and 2,318.7 million tons of surface minable federal coal).</p> <p><u>Green River RMP/JMH CAP:</u></p> <p>Federal coal lands within the Coal Occurrence and Development Potential area (about 422,000 acres) are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses.</p> <p><u>BTNF LRMP:</u></p> <p>Coal Leasing Standard - Coal leasing will be allowed. Strip mining will not be permitted unless no other mining options exist. Numerous areas closed to</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	leasing of solid minerals.				
77	Coal exploration activities are allowed in sage-grouse core habitat with applicable stipulations.	Coal exploration activities would not be allowed in sage-grouse priority habitat.	No similar action	Same as Alternative A	Coal exploration activities could be allowed in sage-grouse core habitats if they can be completed in compliance to surface occupancy and disturbance and density stipulations analyzed through the DDCT process.
Solid Leasable Minerals (Other than Coal and Oil Shale)					
78	<p>Leasing of non-energy leasable minerals would be considered within sage-grouse core habitat areas, except in areas that are unavailable for leasing due to the need to protect sensitive resources (Map 2-24).</p> <p><u>Kemmerer RMP:</u></p> <p>Sodium: All public lands (outside of the Raymond Mountain WSA and exceptions identified below) within the planning area are available for sodium leasing consideration. Exploration for sodium will be considered on a case-by-case basis. Limited surface occupancy criteria contained in the Sodium Mineral Development Environmental Assessment will be applied on a case-by-case basis. No new</p>	Priority habitat would be closed to non-energy leasable mineral leasing. This would include not permitting any new leases to expand an existing mine (Map 2-25).	Same as Alternative B (Map 2-26)	<p>In addition to Alternative A:</p> <p>Exploration licenses and prospecting permits would be considered with appropriate mitigating measures.</p> <p>All non-energy leasable mineral activities would be considered in sage-grouse core habitats, provided that the activities can be completed in compliance to surface occupancy and disturbance and density stipulations (Map 2-27) analyzed through the DDCT process.</p>	Same as Alternative D (Map 2-28)

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>sodium leases or exploration licenses may be issued on lands within the Raymond Mountain WSA. No new sodium exploration and leasing will be considered for Rock Creek/Tunp and Bear River Divide management areas.</p> <p>Phosphate: All public lands (outside of the Raymond Mountain WSA and exceptions identified below) within the planning area are available for phosphate leasing consideration. Exploration for phosphate will be considered on a case-by-case basis. No new phosphate exploration and leasing will be considered for Rock Creek/Tunp and Bear River Divide management areas.</p> <p><u>Pinedale RMP:</u> Should interest in other leasable minerals materialize in the future, leasing will be considered on a case-by-case basis, and the RMP will be amended as appropriate and necessary. The same surface disturbance restrictions will be used in analyzing leasing proposals and determining the issuance of any leases (for example, geothermal steam, coal, sodium, oil</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>shale, and phosphate). <u>Green River RMP/JMH CAP:</u> The known sodium leasing area is open to exploration and consideration for leasing and developments, but is closed to prospecting permits. The remainder of the planning area is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities (areas closed to drilling, off road vehicle use, and explosive charges). Sodium (trona) leasing will be considered on a case-by-case basis, and is subject to the same conditional requirements as oil and gas and coal, and the general management direction applied in this RMP.</p>				
Locatable Mineral Activities					
79	<p>Portions of sage-grouse core habitat are withdrawn from mineral entry for the protection of sensitive resources (Map 2-19).</p>	<p>In priority habitat, withdrawal from mineral entry would be proposed based on risk to the sage-grouse and its habitat from conflicting locatable mineral potential and development (Map 2-20). Existing [mining] claims would be made within the</p>	<p>Same as Alternative B (Map 2-21)</p>	<p>Same as Alternative A (Map 2-22)</p>	<p>The withdrawal of sage-grouse core habitat areas from mineral entry would be considered for recommendation, based on risk to sage-grouse and its habitat from conflicting locatable mineral potential and development (Map 2-23).</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<p>withdrawal area subject to validity exams or buy out. Claims that have been subsequently determined to be null and void in the recommended withdrawal would be included.</p> <p>In plans of operations required prior to any proposed surface disturbing activities, the following would be included:</p> <ol style="list-style-type: none"> 1. Additional, effective mitigation in perpetuity for conservation (In accordance with existing policy, WO IM 2008-204). (Example: purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government). <p>Seasonal restrictions would be considered if deemed effective.</p>			<p>Operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact sage-grouse core area habitats. The AO may convey to the operator suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations [also called the project area which is defined in 43 CFR 3809.5 and 36 CFR 228.3.</p> <p>These suggested conservation measures include measures that support the overall goals and objectives of the core population area strategy, though measures listed for protection of sage-grouse breeding, nesting, brood-rearing, and wintering may not be reasonable or applicable to the BLM/Forest Service's determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5 and 36 CFR 228.3. The request containing the suggested conservation measures must make clear that the</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					<p>operator's compliance is not mandatory.</p> <p>Notices or Plans of Operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15 day completeness review of notices [or modifications thereto] and 30 day completeness review of plans of operations [or modifications thereto], the proposed project area(s) where exploration, development, mining, access and reclamation would take place should be reviewed for overlap of sage-grouse core areas in the corporate GIS database. If there is overlap, the BLM/Forest Service AO may notify the operator of ways that they may minimize impacts to core area habitats and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator's compliance is not mandatory and that including such measures is not a requirement for completeness of either the notice or a plan of operations, nor is it a</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					condition of acceptance of the notice or approval of the plan of operations.
Saleable Minerals					
80	Sage-grouse core habitat areas would be open to mineral material exploration, sales, and free use permits, except in areas that are unavailable due to the need to protect other resource values (Map 2-14).	Sage-grouse priority habitat areas would be closed to mineral material exploration, sales, and free use permits subject to valid existing rights (Map 2-15).	Same as Alternative B (Map 2-16)	Same as Alternative A (Map 2-17)	In addition to Alternative A: All salable mineral activities within core habitat areas would be considered, provided they can be completed in compliance within surface occupancy, seasonal restrictions, and disturbance and density stipulations (Map 2-18) analyzed through the DDCT process.
81	Saleable mineral pits no longer in use will continue to be available for use for other resource uses.	In sage-grouse priority habitat, saleable mineral pits no longer in use would be restored to meet sage-grouse habitat conservation objectives.	Same as Alternative B	Same as Alternative A	Closure and restoration of saleable mineral pits no longer in use would be considered to meet sage-grouse habitat conservation objectives. Emphasis would be given to reclamation/restoration of sage-grouse core habitat as a viable long term goal to improve sage-grouse habitat.
Recreation and Visitor Services					
Outdoor Recreation Management					
82	<u>Casper RMP:</u> The entire planning area will remain open to dispersed recreation. The camping limit on public lands is set by BLM policy	BLM Special Recreation Permits (SRPs) and Forest Service Recreation Special Use Authorizations (RSUAs) would only be allowed in	Same as Alternative B	In addition to Alternative A: BLM SRPs and Forest Service Recreation SUAs would be approved in sage-grouse core habitat	In addition to Alternative A: BLM SRPs and Forest Service Recreation SUAs would be allowed in sage-grouse core habitat,

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>and is currently limited to 14 days. Emphasis will be placed on providing interpretive and information signs and materials for public land visitors, maintaining existing facilities to a high standard consistent with the recreational setting, and limiting development of additional facilities to those areas where public recreational use of surrounding public lands requires. Work with state, local groups, and adjacent landowners will be conducted to identify and develop recreational trails, both motorized and non-motorized, when the opportunities presents themselves. SRPs will be allowed for commercial, noncommercial, and competitive events on a case-by-case basis. Cooperation will be maintained with a variety of user groups, especially in the local area, to provide diverse recreational opportunities for enjoyment of public lands. BLM will pursue acquisition of lands and interest in lands in the Rattlesnake Range and Pine Ridge areas, as well as promote and support recreation-based tourism.</p>	<p>priority habitat where they would have neutral or beneficial effects to priority habitat areas.</p>		<p>on a case by case basis consistent with other resource values.</p>	<p>unless negative impacts to sage-grouse cannot be adequately mitigated.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p><u>Kemmerer RMP:</u> Allow dispersed recreation and permit special recreational activities (e.g., outfitting and guiding permits and OHV events permitted on an annual basis after evaluation).</p> <p><u>Green River RMP:</u> Special recreation permits will be considered on a case-by-case basis. Appropriate mitigation will be included in special recreation permits, commercial recreation uses, and major competitive recreation events to provide resource protection and public safety.</p> <p><u>JMH CAP:</u> Special recreation use permits for managed activities that occur in the JMH CAP planning area will be reviewed and subject to recommendations made by the Rock Springs Field Office. This will allow the Rock Springs Field Office to track the amount, location, and timing of organized activity occurring within the planning area to monitor resource pressure. The permit evaluation process will consider the nature of the event,</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>potential impacts to resources, conflicts with other events, and impacts to the quality of other visitors' experiences. Mitigation measures necessary to protect the resources will be included in any permit issued. A plan of operation will be required for all commercial recreational operators and outfitters. The plan will describe the type, extent, and location of the recreation use and the mechanisms by which the operator/outfitter will prevent impacts to environmental resources. Any requests in special recreation use permit applications to remove natural resources will be evaluated on a case-by-case basis after an environmental analysis process.</p> <p><u>TBNG LRMP:</u></p> <p>To reduce disturbances to nesting sage-grouse, do not authorize the following activities within 2.0 miles of active display grounds from March 1 to June 15: Permitted recreation events involving large groups of people.</p> <p>Manage display ground viewing activities to reduce disturbances and adverse</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	impacts to the birds on the display grounds.				
83	No similar action	No similar action	Camping and other non-motorized recreation would be seasonally prohibited within 4 miles of active sage-grouse leks.	No similar action	No similar action
Special Designations and Other Management Areas					
84	No similar action	All sage-grouse priority habitat areas would be designated as sage-grouse conservation ACECs/SIAs (Map 2-34).	All sage-grouse priority habitat areas and Audubon Important Bird Areas would be designated as sage-grouse conservation ACECs/SIAs (Map 2-35).	New sage-grouse conservation ACECs/SIAs would not be designated.	Same as Alternative D
85	No similar action	No similar action	Large ACECs/SIAs would be designated to preserve, protect, conserve, restore, and sustain sage-grouse populations and the sagebrush ecosystem on which the sage-grouse relies.	No similar action	No similar action
Travel Management					
86	The following areas would be managed as OHV "open" areas: 1. Casper Field Office: Poison Spider OHV Park (290 acres) 2. Rawlins Field Office: Dune Pond Cooperative Management Area (3,740 acres) 3. Rock Springs Field Office: Portion of the Greater Sand Dunes Recreation Area (530	All OHV "open" areas within sage-grouse priority habitat areas would be designated as limited to designated roads and trails. These areas would include the following: 1. Casper Field Office: Poison Spider OHV Park (290 acres) 2. Rawlins Field Office: Dune Pond Cooperative Management Area	Same as Alternative B	Same as Alternative A	The Casper Field Office Poison Spider OHV Park (290 acres) would remain as an "open" OHV area. The non-sand dune portions of the following OHV "open" areas within sage-grouse core habitat areas would be limited to existing roads and trails: 1. Rawlins Field Office: Dune Pond Cooperative Management Area.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	acres).	(3,740 acres) 3. Rock Springs Field Office: Portion of the Greater Sand Dunes Recreation Area (530 acres). 4. The sand dune portions of these areas where roads do not exist would continue to be managed as OHV "open" areas.			2. Rock Springs Field Office: Portion of the Greater Sand Dunes Recreation Area.
87	Limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.	Motorized travel would be limited to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed. Activity level travel plans would be completed within five years of the record of decision. During activity level planning, where appropriate, routes would be designated in priority habitat with current administrative/agency purpose or need to administrative access only.	Same as Alternative B	Same as Alternative A	Same as Alternative A
88	<u>Casper Field Office:</u> Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sage-grouse leks. Surface disturbing activity is restricted or prohibited	No similar action	New road construction would be prohibited within 4 miles of active sage-grouse leks, and new road construction would be avoided in sage-grouse priority and general	New roads would be avoided within 0.25 miles of the perimeter of occupied sage-grouse leks within sage-grouse core habitat areas.	New primary and secondary (BLM route category) or Route Category level 4 and 5 (Forest Service) roads would be avoided within 1.9 miles of the perimeter of occupied sage-grouse

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>within 0.75 miles of occupied sage-grouse leks in Bates Hole and Fish Creek/Willow Creek.</p> <p>Occupied sage-grouse leks in Bates Hole and Fish Creek/Willow Creek will have a 4-mile buffer. Within this buffer, surface disturbing activities will be avoided within 4 miles of occupied sage-grouse leks in areas with sagebrush stands greater than 10% canopy cover.</p> <p>Avoid surface-disturbing and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 to July 15 (timing limitation stipulation [TLS]).</p> <p><u>Kemmerer Field Office:</u> Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied Greater Sage-Grouse leks.</p> <p><u>Newcastle Field Office:</u> Avoid surface disturbance or occupancy within 0.25 mile of the perimeter or occupied sage-grouse leks.</p> <p><u>Pinedale Field Office:</u></p>		<p>habitat.</p>		<p>leks within sage-grouse core habitat areas.</p> <p>Other new roads would be avoided within 0.6 miles of the perimeter of occupied sage-grouse leks within core habitat areas.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Surface disturbing activities in Traditional Leasing Areas and Unavailable Areas are prohibited in suitable habitat within 0.25 mile of occupied leks.</p> <p><u>Rawlins Field Office:</u> Surface disturbing activities or occupancy are prohibited on and within 0.25 mile of the perimeter of an occupied Greater Sage-Grouse lek.</p> <p><u>Green River RMP/JMH CAP:</u> Active grouse leks (sage- and sharp-tail grouse) and the area within a 0.25 mile of the perimeter of active leks are avoidance areas for surface disturbing activities.</p> <p>Surface occupancy (long-term or permanent aboveground facilities) in the Jack Morrow Hills planning area will be prohibited within 0.25 mile of the perimeter of Greater Sage-Grouse leks unless adverse impacts can be mitigated. Distances will be subject to change on a case-by-case basis dependent on applicable scientific research and site-specific analysis.</p> <p><u>TBNG LRMP:</u> To help reduce adverse impacts to breeding sage-</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	grouse and their display grounds, prohibit construction of new oil and gas facilities within 0.25 mile of active display grounds. A display ground is no longer considered active if it's known to have been unoccupied during the past 5 breeding seasons. This does not apply to pipelines and underground utilities. Roads are included in oil and gas facilities.				
89	<u>Kemmerer RMP:</u> Designated roads would not be upgraded. Any improvements to the roadways would require further analysis.	Within sage-grouse priority habitat, no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity would be allowed unless the upgrading would have minimal impact on sage-grouse in sage-grouse priority habitat, was necessary for motorist safety, or eliminated the need to construct a new road.	Within priority and general sage-grouse habitat, no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity would be allowed unless it was necessary for motorist safety or eliminated the need to construct a new road. Any impacts would be mitigated with methods that have been demonstrated to be effective to offset the loss of sage-grouse habitat.	Within sage-grouse core and general habitat, upgrading of existing routes would be allowed based on other resource uses.	Within sage-grouse core habitat, no upgrading of existing routes that would change route category (BLM route category: road, primitive road, or trail; Forest Service route category: level 1, level 2, or level 3) or capacity would be allowed unless the upgrading would have minimal impact on sage-grouse in sage-grouse core habitat, was necessary for motorist safety, or eliminated the need to construct a new road.
90	No similar action	In priority habitat, existing roads or realignments as described above would be used to access valid existing rights that are not yet developed. If valid existing rights could not be accessed via existing	Within priority and general sage-grouse, route construction would be limited to realignments of existing designated routes if that realignment has a minimal impact on sage-grouse habitat, eliminates	No similar action	In sage-grouse core habitat, existing roads or realignments would be used to access valid existing rights that are not yet developed. If valid existing rights could not be accessed via existing

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		roads, any new road would be constructed to the absolute minimum standard necessary, and the surface disturbance would be added to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, additional, effective mitigation necessary would be evaluated or implemented to offset the resulting loss of sage-grouse habitat.	the need to construct a new road, or is necessary for motorist safety. Impacts would be mitigated with methods that have been demonstrated to be effective to offset the loss of sage-grouse habitat.		roads, any new road would be constructed to the absolute minimum standard necessary, and the surface disturbance would be added to the total disturbance in the sage-grouse core habitat area. If that disturbance exceeds 5% for that area, additional, effective mitigation necessary would be evaluated and implemented to offset the resulting loss of sage-grouse habitat.
91	<p><u>Kemmerer RMP:</u> Roads and two-track routes determined to be unauthorized or redundant and unnecessary for resource management purposes will be reclaimed to achieve surrounding native conditions.</p> <p><u>Rawlins RMP:</u> Roads or trails that are eroding beyond a reasonable level will be fixed or closed.</p> <p><u>JMH CAP:</u> Transportation planning will provide for access to achieve multiple-use goals while providing maximum protection for crucial habitats and sensitive resources and will consider:</p>	In priority habitat, restoration of roads, primitive roads and trails not designated in travel management plans would be conducted. This would include primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that had been selected for protections in previous RMPs.	Same as Alternative B	Within sage-grouse core and general habitat, natural deterioration of roads not designated in travel management plans would be allowed.	<p>In addition to Alternative A:</p> <p>For roads, primitive roads and trails not designated in travel management plans within sage-grouse core habitat areas, natural reclamation of roads and trails would be allowed in appropriate situations where additional resource damage is not foreseeable.</p> <p>This would include primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected to be managed to retain those characteristics for protection.</p> <p><u>Kemmerer RMP:</u> Roads</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Closing and rehabilitating unused roads and trails and those causing resource damage. This will be subject to county review of existing rights-of-way needs.</p> <p><u>BTNF LRMP:</u> Minerals - Reclamation Standard - Disturbed area will be returned to near pre-construction conditions, unless changed conditions would benefit other resources.</p>				<p>and two-track routes determined to be unauthorized or redundant and unnecessary for resource management purposes would be reclaimed to achieve surrounding native conditions.</p>
92	<p><u>BTNF LRMP:</u> Soil, Water, Air - Rehabilitation Standard: Rehabilitation seed mixes or other plantings will be designed for each vegetation community type that meets desired future condition.</p>	<p>Within sage-grouse priority habitats, when reseeding roads, primitive roads and trails, appropriate seed mixes (appropriate for sage-grouse ecological conditions) would be used and the use of transplanted sagebrush would be considered.</p>	<p>Within sage-grouse priority and general habitat, when reseeding closed roads, primitive roads and trails, appropriate native seed mixes and require the use of transplanted sagebrush would be used.</p>	<p>Within sage-grouse core and general habitat, natural reseeding would apply.</p>	<p>Within sage-grouse core habitats, when reseeding roads and trails, appropriate seed mixtures would be used and the use of transplanted sagebrush would be considered.</p>
Vegetation Management					
93	<p><u>Casper RMP:</u> Bates Hole and Fish Creek/Willow Creek: The areas will have priority for vegetative treatments to improve sage-grouse habitats and for vegetation monitoring to ensure residual herbaceous vegetation is maintained for nesting cover on public lands.</p>	<p>In sage-grouse priority habitat, the BLM/Forest Service would manage for vegetation composition and structure consistent with ecological site potential and within the reference state to achieve sage-grouse seasonal habitat objectives.</p>	<p>No similar action</p>	<p>Within sage-grouse core habitat, the BLM/Forest Service would manage for vegetation composition and structure that reflects desired plant community or comparable standard.</p>	<p>Within sage-grouse core and general habitat, the BLM/Forest Service would manage for vegetation composition and structure that reflects ESD or other methods that reference site potential or comparable standard to achieve sage-grouse and other resource objectives.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p><u>TBNG LRMP:</u> Pastures will be managed for sage-grouse/big sagebrush only if they contain sagebrush stands with 5% or more canopy cover of big sagebrush.</p> <p>During vegetation management projects, maintain or increase the size of big sagebrush patches in sage-grouse habitat.</p> <p>When conducting vegetation management projects, maintain small opening within big sagebrush stands at a maximum ratio of 1 acre of opening to 3 acres of shrub.</p> <p>Manage for high vegetative structure in areas where it would enhance sage-grouse nesting habitat. Emphasize areas characterized by: Presence of moderate to highly productive soils and range sites; Plant composition dominated by mid and/or tall grasses, with sagebrush canopy cover of 15 – 25%; Proximity to sage-grouse display grounds.</p>				
94	<p><u>TBNG LRMP:</u> In big sagebrush and sage-grouse wintering habitat, do not prescribe burn or</p>	In priority habitat, fuels treatments would be designed and implemented with an	Within priority and general sage-grouse habitat, sagebrush canopy cover would not be reduced to	No similar action	Within sage-grouse core habitat in northeast Wyoming, vegetation treatments in nesting and

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>treat with herbicides unless it can be demonstrated to be beneficial for local sage-grouse populations. Treatments should not be conducted where shrub canopy cover of sagebrush averages less than 15%. Limit treatments to less than 80-acre patches and no more than 20% of the sagebrush stands in the wintering habitat. Big sagebrush stands within 100 yards of meadows, riparian areas, and other foraging habitats should not be burned or sprayed.</p>	<p>emphasis on protecting existing sagebrush ecosystems. Sagebrush canopy cover would not be reduced to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat and conserve habitat quality for the species. The benefits of the fuel break would be closely evaluated against the additional loss of sagebrush cover in future NEPA documents.</p>	<p>less than 15% unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority and general sage-grouse habitat and conserve habitat quality for the species. The benefits of the fuel break would be closely evaluated against the additional loss of sagebrush cover in the EA process.</p>		<p>wintering habitat that would reduce sagebrush canopy to less than 15% would not be conducted.</p>
95	<p><u>Green River RMP:</u> Prescribed burns generally will be conducted in areas having greater than 35% sagebrush composition, 20% desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits.</p> <p><u>Casper RMP:</u> Decision 4053: The areas (Bates Hole and Fish Creek/Willow Creek) will</p>	<p>In priority habitat, only treatments that conserve, enhance or restore sage-grouse habitat would be allowed (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat).</p>	<p>In addition to Alternative A: Within sage-grouse priority and general habitat, the BLM/Forest Service would ensure that vegetation treatments create landscape patterns which most benefit sage-grouse. Only treatments that are demonstrated to benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat objectives would be allowed (this includes</p>	<p>In addition to Alternative A: For vegetation treatments in sagebrush within core habitat areas, refer to Attachment 6 – WGFD Protocols for Treating Sagebrush to Benefit Sage-Grouse (WGFD 2011, as updated). These recommended protocols would be used in determining whether proposed treatment constitutes a “disturbance” that will contribute toward the 9% threshold for habitat maintenance.</p>	<p>In addition to Alternative A: For vegetation treatments in sagebrush within core habitat areas, refer to Appendix A, WGFD Protocols for Treating Sagebrush to Benefit Sage-Grouse (WGFD 2011, as updated) and BLM Washington Office Instruction Memorandum 2013 128 and Forest Service 2013 Sage-grouse Conservation Methods (Sage-grouse Conservation Related to Wildland Fire and Fuels</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>have priority for vegetative treatments to improve sage-grouse habitats and for vegetation monitoring to ensure residual herbaceous vegetation is maintained for nesting cover on public lands.</p> <p><u>MBNF LRMP:</u> When managing vegetation, maintain existing, or move towards desired patch size, distribution, abundance, and/or edge-to-interior ratios, which are characteristic of natural disturbances (fire, insects, and diseases) representative of the cover types, measured at the Geographic Area scale.</p>		<p>treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat).</p>	<p>Additionally, these protocols would be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation.</p> <p>Treatments to enhance sagebrush/grasslands habitat for sage-grouse would be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.</p> <p>The BLM/Forest Service would work collaboratively with partners at the state and local level to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation.</p>	<p>Management).</p> <p>These recommended protocols would be used in determining whether proposed treatment constitutes a “disturbance” that would contribute toward the 5% threshold within sage-grouse core habitat maintenance. Additionally, these protocols would be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation.</p> <p>Treatments to enhance sagebrush/grasslands habitat for sage-grouse would be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.</p> <p>The BLM and the Forest Service would work collaboratively with partners at the state and local level to maintain and enhance sage-grouse habitats.</p>
96	<p><u>Casper RMP:</u> Bates Hole and Fish Creek/Willow Creek: As sage-grouse winter</p>	<p>Treatments would not be allowed in known sage-grouse winter range unless the treatments are</p>	<p>Fuels treatments would not be allowed in known sage-grouse winter range unless the treatments are</p>	<p>No similar action</p>	<p>For vegetation treatments in sagebrush within core habitat areas, refer to Attachment 6 – WGFD</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>habitats are designated, a TLS will restrict activities from November 15 to March 14. Within the designated winter habitats, CSU for surface disturbing activities in sagebrush stands of greater than 20% canopy cover.</p> <p><u>TBNG LRMP:</u></p> <p>In big sagebrush and sage-grouse wintering habitat, do not prescribe burn or treat with herbicides unless it can be demonstrated to be beneficial for local sage-grouse populations. Treatments should not be conducted where shrub canopy cover of sagebrush averages less than 15%. Limit treatments to less than 80-acre patches and no more than 20% of the sagebrush stands in the wintering habitat. Big sagebrush within 100 yards of meadows, riparian areas, and other foraging habitats should not be burned or sprayed.</p>	<p>designed to strategically reduce wildfire risk around or in the winter range and would maintain winter range habitat quality.</p>	<p>designed to strategically reduce wildfire risk around or in the winter range and would maintain winter range habitat quality.</p>		<p>Protocols for Treating Sagebrush to Benefit Sage-Grouse (WGFD 2011, as updated). These recommended protocols, subject to seasonal conditions of approval, would be used in determining whether proposed treatment constitutes a “disturbance” that would contribute toward the 5% threshold for habitat maintenance. Additionally, these protocols would be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation.</p> <p>Treatments to enhance sagebrush/grasslands habitat for sage-grouse would be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.</p> <p>The BLM and Forest Service would work collaboratively with partners at the state and local level to maintain and enhance sage-grouse habitats.</p> <p>Seasonal restriction would</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
97	<p><u>Pinedale RMP:</u> Treated areas will generally be rested from livestock grazing for a minimum of two full growing seasons after treatment unless the appropriate level of environmental analysis determines that shorter durations are adequate. Analysis could indicate a need for a longer rest period.</p> <p><u>Green River RMP:</u> All treated areas will be rested a minimum of 2 growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops.</p> <p><u>JMH CAP:</u> Areas proposed for treatment with prescribed burns will be rested 1 full year prior to treatment (unless vegetation cover prior to burning has adequate fine fuels to carry the fire) and 24 months</p>	Treated areas would be rested from grazing for two full growing seasons unless vegetation recovery dictates otherwise with no exceptions.	No similar action	Treated areas would not be rested from grazing.	<p>be applied, as needed, for implementing fuels management treatments according to the type of seasonal habitat present.</p> <p>Grazing would be deferred on treated areas for two full growing seasons unless vegetation objectives or vegetation recovery indicates a shorter or longer rest period is necessary based on vegetation monitoring results.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	after treatment, unless an onsite analysis determines that this time frame should be expanded or reduced. Treatments in aspen communities may be fenced on a case-by-case basis.				
98	No similar action	No similar action	Within sage-grouse priority and general habitat, sagebrush reduction/treatments to increase livestock or big game forage would be avoided and would include plans to restore high-quality habitat in areas with invasive species.	No similar action	For vegetation treatments in sagebrush within core habitat areas, refer to Attachment 6 – WGFD Protocols for Treating Sagebrush to Benefit Sage-Grouse (WGFD 2011, as updated).
Vegetation Reclamation					
99	Reclamation of surface disturbances in sage-grouse habitats would be in accordance with the Wyoming Reclamation Policy (BLM 2009a).	Same as Alternative A	Same as Alternative A	Same as Alternative A	Reclamation of surface disturbances in sage-grouse core habitats would be consistent with the Wyoming Reclamation Policy (BLM 2009a) and Appendix C or Forest Service Reclamation policy. A monitoring plan would be developed for each restoration or reclamation project and reporting progress and changes in resource condition.
100	No similar action	Within sage-grouse priority habitat: Areas for vegetation restoration and/or criteria that include State sage-grouse	Within sage-grouse priority and general habitat, exotic seedings would be rehabbed, interseeded, and restored	No similar action	Areas for vegetation restoration and/or restoration criteria that include state sage-grouse conservation plans and

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<p>conservation plans and appropriate local information would be identified; use of native seeds for restoration would be required unless probability for success is low (non-native seeds could be used as long as they meet sage-grouse habitat objectives); restoration management would be designed to obtain long-term persistence.</p> <p>Reestablishment of sagebrush cover and desirable understory plants would be the highest priority for restoration efforts.</p> <p>Native plants and landscape patterns that most benefit sage-grouse would be restored and created, considering potential changes in climate.</p>	<p>to recover sagebrush in areas to expand sage-grouse priority and general habitats.</p>		<p>appropriate local information would be identified. The use of native plants and seeds for restoration would be required unless the probability for success is low (non-native plants and seeds may be used as long as they meet sage-grouse habitat objectives), and restoration management would be designed to obtain long-term persistence based on ESD.</p> <p>Reestablishment of sagebrush cover and desirable understory plants would be the highest priority for restoration efforts.</p> <p>Landscape patterns that most benefit sage-grouse would be restored and created, considering potential changes in climate.</p>
101	No similar action	<p>Within sage-grouse priority habitat, implementation of restoration projects would be prioritized based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse.</p> <p>Restoration would be prioritized in seasonal</p>	<p>Within sage-grouse priority and general habitat, implementation of restoration projects would be prioritized based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse.</p> <p>Restoration would be prioritized in seasonal</p>	No similar action	<p>Within sage-grouse core habitat, implementation of restoration projects would be prioritized based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse.</p> <p>Restoration would be prioritized in seasonal habitats that are thought</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		habitats that are thought to be limiting sage-grouse distribution and/or abundance.	habitats that are thought to be limiting sage-grouse distribution and/or abundance and where factors causing degradation have already been addressed (e.g., changes in livestock management).		to be limiting sage-grouse distribution and/or abundance.
102	<p><u>Kemmerer RMP:</u> Require the use of certified weed-free seed and mulch for rehabilitation projects.</p> <p><u>Pinedale RMP:</u> Disturbed areas will be reclaimed to native site plant composition. If reclamation of original plant composition is impossible or not desirable, reclamation will achieve a native plant community that meets the Wyoming Standards for Rangeland Health.</p> <p><u>TBNG LRMP:</u> Allow only certified noxious weed seed-free products for animal feed or re-vegetation projects. This includes use of certified hay or straw, and heat-treated, or other appropriately processed products. Where technically and economically feasible, use genetically local (at the ecological sub-section level) native plant species</p>	<p>Native seed allocation would be prioritized for use in sage-grouse habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from Emergency Stabilization and Rehabilitation (ES&R) (BLM) and/or Burn Area Emergency Rehabilitation (BAER) (Forest Service) projects outside of priority sage-grouse habitat to those inside it.</p> <p>Within sage-grouse priority habitat, the use of native plant seeds for ES&R or BAER seedings would be required based on availability, adaptation (site potential), and probability of success.</p>	Same as Alternative B	<p>In addition to Alternative A:</p> <p>Within sage-grouse core habitat, use of native and non-native plant seeds for vegetation seedings would be allowed based on probability of success and benefits to sage-grouse habitats.</p>	<p>In addition to Alternative A:</p> <p>Where probability of success or native seed availability is low or where there is a specific identified purpose that cannot be met with natives, non-native seeds could be used provided they meet sage-grouse habitat conservation objectives.</p> <p>The use of native seeds for fuels management treatment would be prioritized based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low, non-native seeds may be used to meet Greater Sage-Grouse habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and non-native species, as appropriate, to provide for</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>in re-vegetation efforts. To prevent soil erosion, non-native annuals or sterile perennial species may be used while native perennials are becoming established.</p> <p><u>MBNF LRMP:</u> Use native species and desirable non-native species in seed mixtures; if non-natives are used to assure ground cover, select plants based on the likelihood that they will not persist beyond the rehabilitation period. Use genetically local (subsection level) plant species where technically and economically feasible.</p>				<p>fuel breaks.</p> <p>Native seed allocation would be prioritized for use in sage-grouse habitat.</p>
103	No similar action	Post ES&R and BAER management would be designed to ensure long-term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ES&R and BAER projects to benefit sage-grouse (Eiswerth and Shonkwiler 2006).	No similar action	No similar action	Same as Alternative B
104	No similar action	The role of existing seedings that are currently	Within sage-grouse priority and general	No similar action	The role of existing seedings that are currently

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<p>composed of primarily introduced perennial grasses in and adjacent to priority sage-grouse habitats would be evaluated to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part of an AMP/ Conservation Plan or if they provide value in conserving or enhancing the rest of the priority habitats, no restoration would be necessary.</p> <p>The compatibility of these seedings would be assessed for sage-grouse habitat or as a component of a grazing system during the land health assessments (or other analyses [Forest Service only]) (Davies et al. 2011).</p>	<p>habitat, the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to sage-grouse habitat would be evaluated to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings provide value in conserving or enhancing sage-grouse habitat, no restoration would be necessary.</p> <p>The compatibility of these seedings for sage-grouse habitat would be assessed during the land health assessments.</p>		<p>composed of primarily introduced perennial grasses in and adjacent to core sage-grouse habitats would be evaluated to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part of an AMP/ Conservation Plan or if they provide value in conserving or enhancing the rest of the core habitats, no restoration would be necessary.</p> <p>The compatibility of these seedings for sage-grouse habitat or as a component of a grazing system would be assessed during the land health assessments (or other analyses [Forest Service only]) (Davies et al. 2011).</p>
105	No similar action	<p>Priority would be given for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites that are adjacent to or surrounded by sage-grouse priority habitats. Annual grasslands would be second priority for restoration when the sites are not adjacent to priority habitat, but are within 2 miles of priority habitat. The third priority for</p>	No similar action	<p>Within sage-grouse core and general habitat, sage-grouse habitat restoration projects in annual grassland restoration would be prioritized commensurate with its threat to the region.</p>	<p>Priority would be given for implementing specific sage-grouse habitat restoration projects in areas invaded by annual grasses first to sites that are adjacent to or surrounded by sage-grouse core habitats. Areas invaded by annual grasses would be second priority for restoration when the sites are not adjacent to core habitat, but are within 2 miles of</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		annual grasslands habitat restoration projects would be sites beyond 2 miles of priority habitat. The intent would be to focus restoration outward from existing, intact habitat.			core habitat. The third priority for areas invaded by annual grasses habitat restoration projects would be sites beyond 2 miles of core habitat. The intent would be to focus restoration outward from existing, intact habitat.
106	No similar action	In fire prone areas where sagebrush seed is required for sage-grouse habitat restoration, the BLM/Forest Service would consider establishing seed harvest areas that are managed for seed production and are a priority for protection from outside disturbances.	Same as Alternative B.	No similar action	Same as Alternative B
107	No similar action	No similar action	Any vegetation treatment plan would include pretreatment data on wildlife and habitat condition, establish non-grazing exclosures, and include long-term monitoring where treated areas are monitored for at least three years before grazing returns. Monitoring would be continued for five years after livestock are returned to the area, and compared to treated, ungrazed exclosures, as well as untreated areas.	No similar action	Vegetation treatment proposals must include evaluation of soils, precipitation, invasive/exotic plants, as well as the current condition of sage-grouse core habitats.

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
Grasshopper/Mormon Cricket Control and Management					
108	<p><u>Casper RMP:</u> Work with Animal and Plant Health Inspection Service (APHIS) to control outbreaks of grasshoppers and Mormon crickets on public lands in the planning area in accordance with the MOU between U.S. Department of the Interior and APHIS.</p>	<p>Grasshopper or cricket control would not occur in sage-grouse priority habitat areas unless it can be demonstrated that it is beneficial to sage-grouse.</p>	<p>No similar action</p>	<p>Grasshopper or cricket control would occur to enhance economic benefits to other resource objectives.</p>	<p>The BLM/Forest Service could implement treatments within sage-grouse core habitat areas where outbreaks of grasshopper or Mormon cricket populations are expected to rise above economic levels. Treatments must be conducted only following reduced agent-area treatments (RAATS) protocols. The BLM/Forest Service would work collaboratively with partners at the federal, state, and local levels, including the Wyoming Weed and Pest Districts within the counties where the treatment is to occur, to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation. The BLM/Forest Service would be directed to utilize the Wyoming Grasshopper and Mormon Cricket Control website as a resource for updated information when conducting analysis of grasshopper and Mormon cricket control in sage-grouse habitats.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
Wild Horse Management					
109	<u>Green River RMP/JMH CAP:</u> Specific habitat objectives for herd management areas would be developed. Consideration will be given to desired plant communities, wildlife, watershed, livestock grazing, and other resource needs.	Within sage-grouse priority habitat, BLM Herd Management Area Plans (HMAPs) and Forest Service Wild Horse Territory Plans (WHTPs) would be developed or amended to incorporate sage-grouse habitat objectives and management considerations for all BLM herd management areas (HMAs) and Forest Service Wild Horse Territories (WHTs).	Same as Alternative B	Wild horse and burro populations would be managed at an appropriate management level, utilizing sage-grouse core habitat condition as one key parameter for setting these levels, where BLM HMAs and core habitat overlap.	Within sage-grouse core habitat, the BLM would review and consider amending BLM Herd Management Area Plans (HMAPs) to incorporate sage-grouse habitat objectives and management considerations for all BLM herd management areas (HMAs).
110	No similar action	For all BLM HMAs and Forest Service WHTs within priority sage-grouse habitat, the evaluation of all AMLs would be prioritized based on indicators that address structure/condition/composition of vegetation and measurements specific to achieving sage-grouse habitat objectives.	No similar action	The evaluation of all AMLs in sage-grouse core habitat would be prioritized based on sage-grouse habitat objectives.	Sage-grouse core habitat management objectives would be considered when evaluating AMLs.
111	No similar action	Within sage-grouse priority habitat, land health assessments would be prioritized and conducted to determine existing structure/condition/composition of vegetation within all BLM HMAs and Forest Service WHTs.	Same as Alternative B	Land health assessments would be prioritized and conducted in BLM HMAs within sage-grouse core habitat areas.	Sage-grouse core habitat management objectives would be considered when conducting land health assessments in BLM HMAs.
112	<u>Green River RMP:</u>	When conducting NEPA	Same as Alternative B	No similar action	When conducting NEPA

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Water developments will be provided if necessary, to improve herd distribution and manage forage utilization.</p> <p><u>JMH CAP:</u> Water developments will be provided if necessary, to improve herd distribution and manage forage utilization.</p> <p>Water developments within sensitive wildlife habitats will be considered only if wildlife habitat and resource conditions will be improved or maintained.</p>	<p>analysis for wild horse and burro management activities, water developments or other rangeland improvements for wild horses in sage-grouse priority habitat, the direct and indirect effects to sage-grouse populations and habitat would be addressed.</p> <p>Water developments or rangeland improvements would be implemented using the criteria identified for domestic livestock identified above in priority habitats.</p>			<p>analysis for wild horse and burro management activities, water developments or other rangeland improvements for wild horses in sage-grouse core habitat, the direct and indirect effects to sage-grouse populations and habitat would be addressed.</p> <p>Water developments or rangeland improvements would be implemented using the criteria identified for domestic livestock identified above in core habitats.</p>
113	No similar action	The BLM/Forest Service would coordinate with other resources (Range, Wildlife, and Riparian) to conduct land health assessments to determine existing structure/condition/composition of vegetation within all BLM HMAs and Forest Service WHTs.	Same as Alternative B	No similar action	Coordinate with other resources (Range, Wildlife, and Riparian) to conduct land health assessments within all BLM HMAs.
Wildland Fire and Fuels Management					
114	<p><u>Casper RMP:</u> Utilize an integrated management technique approach (defined as prescribed fire, mechanical, chemical, or biological, followed by desired reseeding) to reduce fuels to protect high priority areas or resource</p>	In priority habitat, fuels treatments would be designed and implemented with an emphasis on protecting existing sagebrush ecosystems.	Within sage-grouse priority and general habitat, fuels treatments would be designed and implemented with an emphasis on protecting existing sagebrush ecosystems.	No similar action	In sage-grouse core habitat, fuels treatments would be designed and implemented with an emphasis on protecting existing sagebrush ecosystems and enhancing and protecting future sagebrush ecosystems (refer to

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>values defined as, but not limited to the following:</p> <ol style="list-style-type: none"> 1. Urban and industrial interface areas 2. Developed recreation areas 3. Commercial timber areas 4. Wildlife habitats 5. Range-improvement facilities 6. Communication sites 7. Municipal watersheds. 				<p>WGFD Protocols for Treating Sagebrush to Benefit Sage-grouse [WGFD 2011, as updated]) and Appendix A.</p> <p>These recommended protocols would be used in determining whether proposed treatment constitutes a “disturbance” that will contribute toward the 5% threshold for habitat maintenance.</p> <p>Fuel treatments would be designed through an interdisciplinary process to expand, enhance, maintain, and protect Greater Sage-Grouse habitat. Green strips (using native fire resistant/resilient species) and/or fuel breaks would be used, where appropriate, to protect seeding efforts from subsequent fire events.</p> <p>In coordination with the USFWS and relevant state agencies, BLM/Forest Service planning units (Districts/Forests) with large blocks of Greater Sage-Grouse habitat would develop, by December 2014, using the assessment process described in Appendix A, a fuels management strategy which considers an up-to-date fuels profile,</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					<p>land use plan direction, current and potential habitat fragmentation, sagebrush and sage-grouse ecological factors, and active vegetation management steps to provide critical breaks in fuel continuity, where appropriate. When developing this strategy, planning units would consider the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.</p> <p>Utilizing an interdisciplinary approach, a full range of fuel reduction techniques would be available. Fuel reduction techniques such as grazing, prescribed fire, chemical, biological, and mechanical treatments would be acceptable.</p> <p>Upon project completion, fuels projects would be monitored and managed to ensure long-term success, including persistence of seeded species and/or other treatment components. Invasive vegetation post-treatment would be controlled.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					Wildfire prevention plans would be developed that explain the resource value of sage-grouse habitat and include fire prevention messages and actions to reduce human-caused ignitions.
115	<p><u>Kemmerer RMP:</u> Implement BLM Emergency Stabilization and Rehabilitation standards located in the DOI Interagency Burned Area Emergency Response Guidebook and BLM Burned Area Emergency Stabilization and Rehabilitation Handbook on wildland fires to protect and sustain healthy ecosystems and protect life and property.</p> <p><u>Newcastle RMP:</u> All wildfires will be evaluated to determine the need for rehabilitation or restoration measures. Restoration of burned areas will be by natural succession unless a special need is identified to prevent further resource damage.</p> <p><u>Rawlins RMP:</u> Rehabilitation and restoration efforts specific to a fire event will be undertaken to protect and sustain ecosystems, public</p>	<p>Burned areas that are within priority sage-grouse habitats would be restored and recovered.</p> <p>The BLM/Forest Service would bring in BAER and Burned Area Rehabilitation (BAR) teams who would work collaboratively with partners at the federal, state, and local level to maintain and enhance sage-grouse habitats in a manner consistent with the priority habitat population area strategy for conservation. DDCT reviews would be conducted in coordination with the WGFD Habitat Protection Program located in Cheyenne, Wyoming, at the WGFD headquarters. Areas within sage-grouse priority habitat would be high priority for restoration of sage-grouse habitat beyond immediate response.</p>	No similar action	Same as Alternative A	<p>In addition to Alternative A: Burned areas that are within core sage-grouse habitats would be restored.</p> <p>Areas containing less than 5% canopy cover would be treated as disturbed pending an implementation management plan with trend data showing the area returning to functional sage-grouse habitat. This would be specific only to wildfire situations. This direction would not be intended for other incentive/mitigation situations.</p> <p>The BLM/Forest Service could bring in BAR and BAER teams who would work collaboratively with partners at the federal, state, and local level to maintain and enhance sage-grouse habitats in a manner consistent with the core habitat population area strategy for</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>health and safety, and to help communities protect infrastructure.</p>				<p>conservation. DDCT reviews would be conducted in coordination with the WGFD Habitat Protection Program located in Cheyenne, Wyoming at the WGFD headquarters. Areas within sage-grouse core habitat would be high priority for restoration of sage-grouse habitat beyond immediate response.</p>
<p>116</p>	<p><u>Casper RMP:</u> Use prescribed burning to achieve measurable 5th-order watershed objectives from (1) other resources, including, but not limited to, forestry, wildlife, range, vegetation, and watershed; (2) the reduction of hazardous fuels; and (3) the introduction of fire into fire-adapted ecosystems.</p> <p><u>Green River RMP/JMH CAP:</u> Prescribed fire will generally be the preferred method of vegetation manipulation to convert decadent stands of brushland to grasslands and to stimulate sprouting of old, decadent aspen stands and/or shrub species. Prescribed burns are preferred in areas having greater than 35%</p>	<p>Within sage-grouse priority habitat, fire would not be used to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species). However, if as a last resort and after all other treatment opportunities have been explored and site specific variables allow, the use of prescribed fire that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory.</p>	<p>Within sage-grouse priority and general habitat, fire would not be used to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species). However, if as a last resort and after all other treatment opportunities have been explored and site specific variables allow, the use of prescribed fire for fuel breaks that would disrupt the fuel continuity across the landscape could be considered in stands where cheatgrass is a very minor component in the understory.</p>	<p>Same as Alternative A</p>	<p>In addition to Alternative A: For fuels management, the agencies would consider multiple tools for fuels reduction and would analyze in NEPA compliance documentation before electing to implement prescribed fire in sage-grouse core habitat areas. The use of prescribed fire would be avoided in areas of Wyoming big sagebrush, other xeric sagebrush species, where cheatgrass or other fire-invasive species occur, and/or within areas of less than 12-inch precipitation zones. Refer to Appendix A, WGFD Protocols for Treating Sagebrush to Benefit Sage-grouse (WGFD 2011, as updated)</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>sagebrush composition, 20% desirable grass composition, and greater than 10 inches of precipitation.</p> <p><u>Rawlins RMP:</u> Fuel treatments, including prescribed fire, mechanical, chemical, and biological treatments will be used for fuels reduction and to meet other multiple-use resource objectives, including returning fire to its natural role in the ecosystem. Wildland-urban interfaces (WUI) and communities at risk will receive priority for fuels reduction.</p>				<p>and BLM Washington Office Instruction Memorandum 2013-128 and Forest Service 2013 Sage-Grouse Conservation Methods (Sage-grouse Conservation Related to Wildland Fire and Fuels Management). If prescribed fire activities are not in compliance with these protocols, the treatment would be considered a sage-grouse core habitat disturbance.</p>
117	No similar action	<p>Within sage-grouse priority habitat, post fuels management projects would be designed to ensure long-term persistence of seeded or pre-treatment native plants. This could require temporary or long-term changes in livestock grazing management, wild horse and burro management, travel management, or other activities to achieve and maintain the desired condition of the fuels management project.</p>	<p>Within sage-grouse priority and general habitat, post fuels management projects would be designed to ensure long-term persistence of seeded or pre-treatment native plants, including sagebrush. This could require temporary or long-term changes in livestock grazing management, wild horse and burro management, travel management, or other activities to achieve and maintain the desired condition of the fuels management project.</p>	No similar action	<p>Within sage-grouse core habitat, post fuels management projects would be designed to ensure long-term persistence of seeded or pre-treatment native plants (while controlling for erosion and treating infestation of invasive plant species), to return to suitable sage-grouse habitat.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
118	<p><u>Casper RMP:</u> Treat woodland encroachment in grassland, sagebrush, aspen, and other vegetative communities where it is determined to be detrimental to other resource values or uses. Manage 630,180 acres of sagebrush communities toward Desired Plant Community (DPC).</p>	No similar action	Within sage-grouse priority and general habitat, lands will be managed to be in the good or better ecological condition to help minimize adverse impacts of fire.	No similar action	Same as Alternative A
119	<p><u>Pinedale RMP:</u> In the WUI or industrial interface, fuels reduction methods best suited to the area will be used to reduce the risk of catastrophic fire to these areas.</p> <p><u>Casper RMP:</u> Use prescribed burning to achieve measurable 5th-order watershed objectives from (1) other resources, including, but not limited to, forestry, wildlife, range, vegetation, and watershed; (2) the reduction of hazardous fuels; and (3) the introduction of fire into fire-adapted ecosystems. Utilize an integrated management technique approach (defined as prescribed fire, mechanical, chemical, or biological, followed by desired reseeding) to</p>	Same as Alternative A	Within sage-grouse priority and general habitat, any fuels treatments would focus on interfaces with human habitation or significant existing disturbances.	Same as Alternative A	Same as Alternative A

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>reduce fuels to protect high priority areas or resource values defined as, but not limited to the following:</p> <ol style="list-style-type: none"> 1. Urban and industrial interface areas 2. Developed recreation areas 3. Commercial timber areas 4. Wildlife habitats 5. Range-improvement facilities 6. Communication sites 7. Municipal watersheds. <p>Decision 3008 Fuels Management</p> <p><u>Rawlins RMP:</u> A high priority for fire management activities will be given to areas identified as communities at risk, industrial interface areas, and areas containing resource values considered high priority within the RMP planning area.</p> <p><u>JMH CAP:</u> Appropriate management response to protect the basin big sagebrush/lemon scurfpea plant communities will be applied.</p> <p>Wildland and prescribed fires will be managed in all vegetation types to maintain or improve</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>biological diversity and the overall health of the public lands. In particular, plant species and age class diversity will be a priority; thus, appropriate management response (AMR) for all wildland fires will be identified and implemented depending on the resources and management objectives for the area.</p> <p>Suppression techniques and hazardous fuels reduction activities will be identified to reduce wildland fire severity and occurrence on portions of the landscape where fire could cause undesirable changes in plant community composition and structure. A site-specific analysis will be prepared for sensitive resource areas, such as special status plant species sites, heritage sites, historic trails, and ACECs, to determine the type of fire suppression activity that will be acceptable. Fire equipment and fire suppression techniques, such as vegetation clearing, will be limited to existing roads and trails in special status plant species habitat. As appropriate, the Fire Management Plan will be updated to reflect the</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	appropriate suppression activity in sensitive resource areas.				
120	No similar action	No similar action	Within sage-grouse priority and general habitat, post fire recovery would include establishing adequately sized exclosures (free of livestock grazing) that could be used to assess recovery.	No similar action	No similar action
121	No similar action	No similar action	Within sage-grouse priority and general habitat, livestock grazing should be excluded from burned areas until woody and herbaceous plants achieve sage-grouse habitat objectives.	No similar action	No similar action
122	No similar action	No similar action	Within sage-grouse priority and general habitat where burned sage-grouse habitat cannot be fenced from other unburned habitat, the entire area (e.g., allotment/pasture) should be closed to grazing until recovered.	No similar action	No similar action
123	No similar action	No similar action	Within sage-grouse priority and general habitat, mowing of grass would be used in any fuelbreak fuels reduction project (roadsides or other areas).	No similar action	No similar action
124	<u>Casper RMP:</u>	In priority sage-grouse habitat areas, suppression	Same as Alternative B	Same as Alternative A	In addition to

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Appropriate management response will be used on all wildfires in the planning area.</p> <p>Full protection strategies and tactics will be used in the following areas:</p> <ol style="list-style-type: none"> 1. WUI 2. Wildland industrial interface 3. Developed recreation sites 4. Developed electronics sites of all types. <p>In all other areas AMR strategies and tactics will be determined by (but not limited to) the following:</p> <ol style="list-style-type: none"> 1. Firefighter and public safety 2. Resource values at risk 3. Proximity to private land 4. Firefighting resource availability. <p>Tactical constraints follow: The use of retardant within 300 feet of surface water (standing or running) is prohibited.</p> <p>No trees are to be cut during suppression activities within 200 yards of an identified bald eagle roost.</p> <p>No heavy equipment will be used within the following areas, except when human safety is at</p>	<p>would be prioritized immediately after firefighter and public safety to conserve the habitat.</p> <p>In general sage-grouse habitat, a high priority for suppression would be assigned where wildfires threaten priority sage-grouse habitat.</p>			<p>Alternative A: In Greater Sage-Grouse habitat (priority and general habitat), suppression would be a high priority and commensurate with values at risk.</p> <p>General sage-grouse habitat would be assigned a priority commensurate with its importance in the local fire plan.</p> <p>Fire fighter and public safety would be the highest priority. Greater Sage-Grouse habitat would be prioritized commensurate with property values and other critical habitat to be protected, with the goal to restore, enhance, and maintain areas suitable for Greater Sage-Grouse.</p> <p>Within sage-grouse habitat, core habitat (and PACs, if so determined by individual LUP efforts) would be the highest priority for conservation and protection during fire operations and fuels management decision making. The sage-grouse core habitat (and PACs, if so determined by individual LUP efforts) would be viewed as more valuable than general habitat when priorities are</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>risk:</p> <ol style="list-style-type: none"> 1. Areas of cultural resource sensitivity 2. Riparian/wetland habitats 3. Big game crucial winter range habitats 4. Greater Sage-Grouse leks 5. Areas of highly erosive soils. <p>In areas not identified as full protection, heavy equipment usage will be limited to existing roads and trails or immediately adjacent to them.</p> <p><u>Kemmerer RMP:</u></p> <p>In areas of high-density urban and (or) industrial interface with intermingled BLM-administered lands, suppression objectives will follow the AMR in an approved fire management plan for the planning area to provide first for human health and safety, while minimizing loss of property and threats to other surface owners. Generally, wildland fires are suppressed in these areas.</p> <p>In areas of low-density urban and (or) industrial interface where BLM-administered lands occur in large contiguous blocks, fire suppression objectives</p>				<p>established. When suppression resources are widely available, maximum efforts would be placed on limiting fire growth in general sage-grouse habitat polygons as well. These priority areas will be further refined following completion of the Greater Sage-Grouse Landscape Wildfire and Invasive Species Habitat Assessments described in Appendix A.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>will follow the AMR in an approved fire management plan for the planning area to provide first for human health and safety, while allowing for achievement of resource objectives.</p> <p><u>Newcastle RMP:</u> Full suppression will be used on fires endangering human life or that spread to within 0.25 mile of state or private lands, structures and facilities, oil and gas fields, important riparian habitat, or other sensitive resources.</p> <p>All wildfires will be evaluated to determine the need for rehabilitation or restoration measures. Restoration of burned areas will be by natural succession unless a special need is identified to prevent further resource damage.</p> <p><u>Pinedale RMP:</u> Wildland fire mitigation and fuels activities will be managed to provide for firefighter and public safety as a first priority. Public lands within intermixed landownership areas will be managed in association with the adjoining and nearby private and state lands.</p> <p>Areas of mixed</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>landownership, communities at risk as identified in the Federal Register, Volume 66, Number 160, 2001 (Antelope Run, Beaver Creek area, Boulder, Cottonwood Creek, Daniel, Forty Rod, Hoback Ranches, New Fork, Pinedale, Pocket Creek, and Upper Green); urban and industrial interface areas; and areas containing high-priority resource values have high priority for response to wildland fires and/or for fuels reduction and mitigation. Wildland fire suppression activities will be based on the AMR.</p> <p><u>Rawlins RMP:</u> A high priority for fire management activities will be given to areas identified as communities at risk, industrial interface areas, and areas containing resource values considered high priority within the RMP planning area.</p> <p><u>Green River RMP:</u> Wildfire suppression will emphasize AMR. Immediate control actions will be used only in cases of arson, direct threat to public safety, or a strong potential threaten structural</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>property.</p> <p>Fire suppression actions will be based on achieving the most efficient control and allowing historical acres burned to increase. Activity plans will be developed for designated fire management areas defining specific parameters for all fire occurrences.</p> <p><u>JMH CAP:</u></p> <p>Appropriate management response to protect the basin big sagebrush/lemon scurfpea plant communities will be applied.</p> <p>Wildland and prescribed fires will be managed in all vegetation types to maintain or improve biological diversity and the overall health of the public lands. In particular, plant species and age class diversity will be a priority; thus, AMR for all wildland fires will be identified and implemented depending on the resources and management objectives for the area.</p> <p>Suppression techniques and hazardous fuels reduction activities will be identified to reduce wildland fire severity and occurrence on portions of the landscape where fire</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>could cause undesirable changes in plant community composition and structure. A site-specific analysis will be prepared for sensitive resource areas, such as special status plant species sites, heritage sites, historic trails, and ACECs, to determine the type of fire suppression activity that will be acceptable. Fire equipment and fire suppression techniques, such as vegetation clearing, will be limited to existing roads and trails in special status plant species habitat. As appropriate, the Fire Management Plan will be updated to reflect the appropriate suppression activity in sensitive resource areas.</p> <p><u>TBNG LRMP:</u> Minimize impacts to paleontological and heritage resources, streams, stream banks, shorelines, lakes and associated vegetation, and habitat for threatened, endangered, proposed, and sensitive species from wildfire suppression efforts in the following ways: Prohibit the use of earth-moving equipment on known paleontological or heritage sites.</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Discourage the application of fire-retardant chemicals over riparian areas, wetlands, and open water.</p> <p>Prior to using earth-moving equipment, consult appropriate specialists for guidance.</p> <p>Notify USFWS when TES habitat is threatened or impacted by fire.</p> <p><u>BTNF LRMP:</u></p> <p>Wildland fire suppression standards LRMP fire amendment, page 9</p> <p>Wildland fire suppression standards:</p> <p>A full range of suppression tactics is authorized Forest-wide, consistent with Forest-wide and individual DFC management emphasis and direction.</p> <p>Wildland fire use standard, page 10, LRMP fire amendment:</p> <p>Wildland fire use is authorized Forest-wide, consistent with Forest-wide and DFC emphasis and direction.</p> <p>The Fire Management Plan will designate areas of high resource values that will be protected during fire use. These sites include:</p> <ol style="list-style-type: none"> 1. Administrative sites 2. Developed recreation 				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>sites</p> <p>3. Summer homes</p> <p>4. Communication sites</p> <p>5. Oil and gas sites</p> <p>6. Utility corridors</p> <p>7. Other sites containing capital improvements.</p> <p><u>MBNF LRMP:</u></p> <p>When determining the appropriate fire management response, consider the following factors: a) proximity to other ownerships including all wildland-urban interfaces, b) values at risk such as suitable timber, structural improvements, and special interest areas, c) steep topography and motorized access to the area, d) protection of watersheds especially those that provide drinking water for local communities, e) concerns related to wildlife habitat management, and f) other multiple use, ecosystem management, or agency policy objectives.</p> <p>Where fire suppression is necessary, use techniques that minimize soil and vegetation disturbance.</p>				
Wildlife and Fisheries Habitat Management					
Monitoring Effectiveness					
125	<u>Casper RMP:</u>	Sage-grouse monitoring	No similar action	Same as Alternative B	The BLM/Forest Service,

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Bates Hole and Fish Creek/Willow Creek: The areas will have priority for vegetative treatments to improve sage-grouse habitats and for vegetation monitoring to ensure residual herbaceous vegetation is maintained for nesting cover on public lands.</p>	<p>plans would be developed and implemented in coordination with the WGFD and partners, and sage-grouse habitats and populations would be monitored to assess the effectiveness of conservation measures that are applied in achieving the conservation of sage-grouse habitats.</p> <p>The directives contained in the LUP actions/decisions would be assessed to determine the effectiveness of their implementation.</p> <p>The BLM/Forest Service would establish monitoring protocols that would be incorporated into project approvals as necessary.</p> <p>The BLM/Forest Service would report annually to the BLM Wyoming State Director regarding sage-grouse monitoring data and the directives contained in the LUP actions/decisions.</p>			<p>in coordination with the State of Wyoming and its agencies, other local partners and stakeholders, would establish monitoring protocols for sage-grouse populations and habitat that would be incorporated into individual project approvals, including small and in-house projects, as appropriate and necessary.</p>
Density and Disturbance					
126	No similar action	<p>Priority sage-grouse habitats would be managed so that discrete anthropogenic disturbances cover less than 3% of the total sage-grouse habitat, regardless</p>	No similar action	<p>Inside Greater Sage-Grouse core habitat areas, the density and disturbance goals would include the following:</p> <ol style="list-style-type: none"> 1. The density of energy production (excluding 	<p>Inside sage-grouse core habitat areas, the BLM/Forest Service would limit the density of activities related to oil and gas development or mining activities to no more than an average of 1</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<p>of ownership.</p> <p>Anthropogenic features would include but would not be limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines.</p> <p>In priority habitats where the 3% disturbance threshold is already exceeded from any source, no further anthropogenic disturbances would be permitted by the BLM or Forest Service until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights).</p> <p>In this instance, an additional objective would be designated for the priority area to prioritize and reclaim/restore anthropogenic disturbances so that 3% or less of the total priority habitat area is disturbed within 10 years.</p>		<p>coal and trona mining) and/or transmission structures (excluding buried pipelines or power lines) on the landscape would be managed.</p> <p>2. An average of three energy production locations and/or transmission structures per 640 acres within the DDCT area would not be exceeded; and the combined value of existing and proposed disturbances within each DDCT would not exceed 9% loss of sagebrush habitat.</p>	<p>location per 640 acres, subject to valid existing rights; and would limit all surface disturbance (any program area) to no more than 5% of the core landscape using the DDCT process described in Appendix I.</p>
127	No similar action	<p>Inside sage-grouse connectivity areas, the disturbance goals would include the following:</p>	Same as Alternative B	<p>Inside sage-grouse connectivity areas, the disturbance goals would include:</p>	<p>Inside sage-grouse connectivity areas, all surface disturbance (any program area) would be</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<ol style="list-style-type: none"> The existing level of density of disturbance would be managed on the landscape. Three percent habitat disturbance (up to 19.2 acres) per 640 acres would not be exceeded using the DDCT process. 		<ol style="list-style-type: none"> The density of energy production (excluding coal and trona mining) and/or transmission structures (excluding buried pipelines or power lines) would be managed on the landscape. Nine percent habitat disturbance (up to 57.6 acres) per 640 acres would not be exceeded using the DDCT process. 	limited to no more than 5% per 640 acres using the DDCT process described in Appendix I.
Onsite and Offsite Mitigation					
128	<p><u>Pinedale RMP:</u> Offsite mitigation proposed by oil and gas or other operators could be considered and analyzed in future environmental documents as possible mitigation for proposed activities within the planning area. Proposed offsite mitigation will be described and analyzed for effectiveness in detail on a project-specific basis. Planning for offsite mitigation will be performed in coordination with local government agencies. The need for offsite mitigation will be determined in conformance with current BLM policy, as updated. The order of use of mitigation methods from</p>	<p>Within sage-grouse priority habitat when permitting APDs on existing leases that are not yet developed, the proposed surface disturbance would not exceed 3% per section for that area.</p> <p>When necessary, additional, effective mitigation would be conducted in 1) sage-grouse priority habitat areas, or less preferably in 2) general sage-grouse habitat (dependent upon the area-specific ability to increase sage-grouse populations). Additional, effective mitigation would be conducted first within the same population area</p>	<p>Within sage-grouse priority habitat when permitting APDs on existing leases that are not yet developed, the proposed surface disturbance would exceed 3% per section for that area.</p> <p>An exception would be considered if additional, effective mitigation is demonstrated to offset the resulting loss of sage-grouse.</p> <p>When necessary, additional, effective mitigation would be conducted in sage-grouse priority and general habitat (dependent upon the area-specific ability to increase sage-grouse populations).</p>	<p>Within sage-grouse core habitat when necessary, offsite mitigation would be conducted within the same population area where the impact occurs; and if that is not possible, mitigation would be conducted within the same Management Zone as the impact.</p> <p>An exception to the 9% limit would be considered if additional mitigation is demonstrated to be capable of offsetting the resultant loss to sage-grouse or their habitats.</p>	<p>In addition to Alternative A: Within sage-grouse core habitat when mitigation is required, the agencies in coordination with the State of Wyoming and its agencies and partners, would use the following mitigation hierarchy:</p> <ol style="list-style-type: none"> In-kind and onsite (on lease) mitigation would be first priority In-kind mitigation offsite within the projects DDCT analysis area would be second priority In-kind mitigation offsite within the core area boundary would be third priority In-kind mitigation

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>most to least preferred is as follows:</p> <ol style="list-style-type: none"> 1. Onsite mitigation directly resolving impacts created by the action. 2. Offsite mitigation to the resources affected by the action that cannot be resolved onsite. 3. Offsite mitigation to similar or related resources affected by the action that cannot be resolved onsite. <p>The following stipulations apply to offsite mitigation measures:</p> <ol style="list-style-type: none"> 1. Offsite mitigation will be used as a last choice when developing mitigation measures. 2. Offsite mitigation proposals will describe the replacement or substitution activities or methods that are used to address potential impacts on specific resources or environments or both. 3. Offsite mitigation must be as close to “in-kind” in replacement or substitution of resources, habitat function, or environments as practicable (e.g., elk habitat for elk habitat, historical properties for 	<p>where the impact is realized; and if not possible, mitigation would be conducted within the same Management Zone as the impact, per 2006 WAFWA Strategy.</p>	<p>Additional, effective mitigation would be conducted first within the same population area where the impact is realized; and if not possible, mitigation would be conducted within the same Management Zone as the impact, per 2006 WAFWA Strategy.</p>		<p>adjacent to the affected core area within general sage-grouse habitat would be fourth priority.</p> <p>When additional offsite mitigation is necessary, it would be conducted within the same population area where the impact occurs; and if that is not possible, mitigation would be conducted within the same Management Zone per 2006 WAFWA Strategy as the impact.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>historical properties).</p> <ol style="list-style-type: none"> 4. Offsite mitigation practices must last as long as the impacts are expected to occur. 5. Offsite mitigation practices are to be developed, conducted or performed, and funded by the project proponent. 6. Offsite mitigation activities must be conducted subject to BLM review and approval that the mitigation will actually address the impacts occurring on the public lands. <p>The priority order for mitigating resource impacts onsite or offsite is as follows:</p> <ol style="list-style-type: none"> 1. Onsite Mitigation – Onsite (avoid, minimize, rectify, or reduce in time). 2. Offsite Mitigation – Local (unless greater resource benefits can be achieved through regional or interstate mitigation). 3. Offsite Mitigation – Regional (unless greater resource benefits can be achieved through interstate mitigation). 				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>4. Offsite Mitigation – Interstate: The preferred area for conducting offsite mitigation is as near (local offsite mitigation) to the project or impacted area as possible or as scientific information and impact analysis suggests.</p> <p>5. Offsite Mitigation – Interstate: The preferred area for conducting offsite mitigation is as near (local offsite mitigation) to the project or impacted area as possible or as scientific information and impact analysis suggests.</p>				
Timing and Distance Restrictions					
129	<p>Sage-grouse leks inside sage-grouse core and connectivity habitat areas:</p> <p><u>Casper RMP:</u> Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sage-grouse leks. Surface disturbing activity is restricted or prohibited within 0.75 miles of occupied sage-grouse leks in Bates Hole and Fish Creek/Willow Creek. Occupied sage-grouse leks in Bates Hole and Fish Creek/Willow Creek will</p>	<p>Sage-grouse leks inside sage-grouse priority and connectivity habitat areas:</p> <p>Provide the following conservation measures as terms and conditions of the approved RMP: New surface occupancy would not be allowed on federal leases within priority habitats. This would include winter concentration areas during any time of the year. The following exceptions would be considered:</p> <p>1. If the lease is entirely</p>	Same as Alternative B	<p>Sage-grouse leks inside core and connectivity habitat areas:</p> <p>Surface occupancy or surface disturbing activities would be prohibited or restricted on or within 0.25 mile radius of the perimeter of occupied sage-grouse leks (Map 2-2).</p>	<p>Sage-grouse leks inside core and connectivity habitat areas:</p> <p>Surface occupancy and surface disturbing activities would be prohibited on or within a 0.6 mile radius of the perimeter of occupied sage-grouse leks (Map 2-3).</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>have a 4-mile buffer. Within this buffer, surface disturbing activities will be avoided within 4 miles of occupied sage-grouse leks in areas with sagebrush stands greater than 10% canopy cover (Map 2-1).</p> <p>Areas Outside of Bates Hole and Fish Creek/Willow Creek:</p> <p>Avoid surface-disturbing and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 to July 15 (TLS).</p> <p><u>Kemmerer RMP:</u></p> <p>Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied Greater Sage-Grouse leks (Map 2-1).</p> <p><u>Newcastle RMP:</u></p> <p>Avoid surface disturbance or occupancy within 0.25 mile of the perimeter or occupied sage-grouse leks.</p> <p><u>Pinedale RMP:</u></p> <p>Surface disturbing activities in <u>Traditional Leasing Areas and Unavailable Areas</u> are prohibited in suitable habitat within 0.25</p>	<p>within priority habitats, a 4-mile NSO would be applied around the lek, and permitted disturbances would be limited to 1 per section with no more than 3% surface disturbance in that section.</p> <p>2. If the entire lease is within the 4-mile lek perimeter, permitted disturbances would be limited to 1 per section with no more than 3% surface disturbance in that section.</p>			

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>mile of occupied leks (Map 2-1).</p> <p><u>Rawlins RMP:</u> Surface disturbing activities or occupancy are prohibited on and within 0.25 mile of the perimeter of an occupied Greater Sage-Grouse or lek (Map 2-1).</p> <p><u>Green River RMP:</u> Active grouse leks (sage-grouse) and the area within a 0.25 mile of the perimeter of active leks are avoidance areas for surface disturbing activities.</p> <p>Surface occupancy (long-term or permanent aboveground facilities) in the Jack Morrow Hills planning area will be prohibited within 0.25 mile of the perimeter of Greater Sage-Grouse leks unless adverse impacts can be mitigated. Distances will be subject to change on a case-by-case basis dependent on applicable scientific research and site-specific analysis (Map 2-1).</p> <p><u>TBNG LRMP:</u> To help reduce adverse impacts to breeding sage-grouse and their display grounds, prohibit construction of new oil and gas facilities within 0.25</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>mile of active display grounds. A display ground is no longer considered active if it's known to have been unoccupied during the past 5 breeding seasons. This does not apply to pipelines and underground utilities (Map 2-1).</p> <p><u>MBNF LRMP:</u> Prohibit new disturbances such as construction, drilling, new recreation facilities, logging, or other concentrated intense activities according to the following table. Short-term projects designed to improve habitat such as prescribed burning are permitted: sage-grouse breeding complexes March 1 through June 30, 2 miles.</p>				
130	<p>Sage-grouse leks outside core and connectivity habitat areas:</p> <p><u>Casper RMP:</u> Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sage-grouse leks (Map 2-1). Surface disturbing activity is restricted or prohibited within 0.75 mile of occupied sage-grouse leks in Bates Hole and Fish Creek/Willow Creek.</p>	No similar action	No similar action	<p>Sage-grouse leks outside core and connectivity habitat areas:</p> <p>Surface occupancy or surface disturbing activities would be restricted on or within a 0.25 mile radius of the perimeter of occupied sage-grouse leks (Map 2-2).</p>	<p>Sage-grouse leks outside core and connectivity habitat areas:</p> <p>Surface occupancy and surface disturbing activities would be prohibited or restricted on or within a 0.25 mile radius of the perimeter of occupied sage-grouse leks (Map 2-3).</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Occupied sage-grouse leks in Bates Hole and Fish Creek/Willow Creek will have a 4-mile buffer. Within this buffer, surface disturbing activities will be avoided within 4 miles of occupied sage-grouse leks in areas with sagebrush stands greater than 10% canopy cover (Map 2-1).</p> <p>Areas Outside of Bates Hole and Fish Creek/Willow Creek:</p> <p>Avoid surface-disturbing and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 to July 15 (TLS).</p> <p><u>Kemmerer RMP:</u></p> <p>Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied Greater Sage-Grouse leks (Map 2-1).</p> <p><u>Newcastle RMP:</u></p> <p>Avoid surface disturbance or occupancy within 0.25 mile of the perimeter or occupied sage-grouse leks (Map 2-1).</p> <p><u>Pinedale RMP:</u></p> <p>Surface disturbing activities</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>inside Intensively Developed Fields will be designed and implemented to minimize impacts on Greater Sage-Grouse habitats to the extent practicable.</p> <p>Surface disturbing activities in Traditional Leasing Areas and Unavailable Areas are prohibited in suitable habitat within 0.25 mile of occupied leks (Map 2-1).</p> <p><u>Rawlins RMP:</u> Surface disturbing activities or occupancy are prohibited on and within 0.25 mile of the perimeter of an occupied Greater Sage-Grouse lek (Map 2-1).</p> <p><u>Green River RMP:</u> Active grouse leks (sage-grouse) and the area within a 0.25 mile of the perimeter of active leks are avoidance areas for surface disturbing activities.</p> <p>Surface occupancy (long-term or permanent aboveground facilities) in the Jack Morrow Hills planning area will be prohibited within 0.25 mile of the perimeter of Greater Sage-Grouse leks unless adverse impacts can be mitigated. Distances will be</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>subject to change on a case-by-case basis dependent on applicable scientific research and site-specific analysis (Map 2-1).</p> <p><u>BTNF LRMP:</u> Not directly addressed; There are numerous areas that are leased that have No Surface Occupancy, Timing-Limitation, and/or Controlled-Surface-Use stipulations. Leases are issued with unique wildlife protection stipulations. Lessees are required to keep an absolute minimum number of access, tote roads, and other travelways necessary to conduct the lessee's operations, the location of which shall be designated by [Forest] Supervisor prior to the time of their construction. Operations shall be conducted in a manner that will offer the least possible disturbance to wildlife on or adjacent to the leased land.</p> <p><u>MBNF LRMP:</u> Prohibit new disturbances such as construction, drilling, new recreation facilities, logging, or other concentrated intense activities according to the following table. Short-term projects designed to improve habitat such as</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>prescribed burning are permitted: sage-grouse breeding complexes March 1 through June 30, 2 miles.</p> <p><u>TBNG LRMP:</u></p> <p>To help reduce adverse impacts to breeding sage-grouse and their display grounds, prohibit construction of new oil and gas facilities within 0.25 mile of active display grounds. A display ground is no longer considered active if it's known to have been unoccupied during the past 5 breeding seasons. This does not apply to pipelines and underground utilities.</p>				
131	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside core habitat areas:</p> <p><u>Casper RMP:</u></p> <p>Avoid surface-disturbing and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 to July 15 (TLS).</p> <p>Bates Hole and Fish Creek/Willow Creek:</p> <p>Occupied sage-grouse leks</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside priority habitat areas:</p> <p>A seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season would be applied in all sage-grouse priority habitat during this period.</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat in priority and general habitat areas:</p> <p>A seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and brood-rearing season would be applied in all occupied sage-grouse habitat during this period. This seasonal restriction would also apply to related activities that are disruptive to sage-grouse, including vehicle traffic and other human</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside core habitat areas:</p> <p>Surface disturbing and/or disruptive activities would be prohibited or restricted from March 15-June 30. This restriction would be applied to all identified nesting and early brood-rearing habitats inside core habitat areas within 2 miles of the lek within sage-grouse core habitat areas.</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside core habitat areas:</p> <p>Surface disturbing and/or disruptive activities would be prohibited from March 1—June 30 to protect sage-grouse breeding, nesting, and early brood-rearing habitat. This timing limitation would be applied throughout the sage-grouse core area habitats. Activities in unsuitable habitats would be evaluated under the exception, waiver, and modification criteria and</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>will have a ¼-mile CSU buffer to protect breeding habitats. Human activity will be avoided between 8 p.m. and 8 a.m. from March 1 to May 15 (TLS) within this buffer. Leks, which are currently displayed as points, will be displayed as polygons.</p> <p>Occupied sage-grouse leks will have a 4-mile buffer. Within this buffer, surface development or wildlife-disturbing activities will be restricted March 15 through July 15 (TLS). Also, within this 4-mile buffer (CSU), surface disturbing activities will avoid sagebrush stands of greater than 10% canopy cover. Within this 4-mile buffer, mitigate for power poles and other high profile structures that may provide raptor perches. Avoid placement of these structures if possible, or install devices to preclude raptor perching on the structures.</p> <p>Areas Outside of Bates Hole and Fish Creek/Willow Creek: Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sage-grouse leks. Avoid human activity between 8 p.m. and 8 a.m.</p>		<p>presence.</p>		<p>could be allowed on a case by case basis.</p> <p>Where credible data support different timeframes for this seasonal restriction, dates could be expanded by up to 14 days prior to or subsequent to the above dates.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>from March 1 to May 15 (TLS) within 0.25 mile of the perimeter of occupied sage-grouse leks.</p> <p><u>Kemmerer RMP:</u> Avoid surface-disturbing and disruptive activities in suitable Greater Sage-Grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified Greater Sage-Grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 through July 15.</p> <p><u>Newcastle RMP:</u> Avoid surface disturbing activities in suitable sage-grouse nesting and early brood-rearing habitat within two miles of an occupied lek or in identified sage-grouse nesting and early brood-rearing habitat outside the two-mile buffer from March 15 through July 15.</p> <p><u>Pinedale RMP:</u> Surface disturbing activities inside Traditional Leasing Areas and Unavailable Areas will be avoided in suitable nesting and early brood-rearing habitat within 2 miles of occupied Greater Sage-Grouse leks from March 15 to July 15.</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p><u>Rawlins RMP:</u> Avoid surface disturbing and disruptive activities, geophysical surveys, and organized recreational activities (events) that require a special use permit in suitable Greater Sage-Grouse nesting and early brood rearing habitat within 2 miles of the perimeter of an occupied Greater Sage-Grouse lek, or in identified Greater Sage-Grouse nesting and early brood rearing habitat, from March 1 to July 15.</p> <p><u>Green River RMP:</u> To protect grouse nesting habitat, seasonal restrictions will apply within appropriate distances from the grouse lek. Appropriate distances (up to two miles) and time frames (usually from March 1 through July 15) will be determined on a case-by-case basis. Exceptions to seasonal restrictions may be granted, provided the criteria in can be met.</p> <p>No disruptive activities in the Jack Morrow Hills planning area are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These limitations will be determined and applied on a case-by-case basis. In</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality.</p> <p><u>TBNG LRMP:</u></p> <p>To help reduce disturbances to nesting sage-grouse, prohibit the following activities within 2 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., roads, water impoundments, oil and gas facilities) 2. Reclamation 3. Gravel mining operations 4. Drilling of water wells 5. Oil and gas drilling 6. Training of hunting dogs. <p>To reduce disturbances to nesting sage-grouse, do not authorize the following activities within 2 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., pipelines, utilities, fencing) 2. Seismic exploration 3. Workover operations for maintenance of oil and gas wells 4. Permitted recreation events involving large 				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>groups of people.</p> <p>When constructing facilities or structures within 2 miles of a sage-grouse active display ground, design them to discourage raptor perching by maintaining a low profile or using perch inhibitors.</p> <p>Manage display ground viewing activities to reduce disturbances and adverse impacts to the birds on the display grounds.</p> <p><u>BTNF LRMP:</u></p> <p>There are numerous areas that are leased that have No Surface Occupancy, Timing-Limitation, and/or Controlled-Surface-Use stipulations. Leases are issued with unique wildlife protection stipulations. Lessees are required to keep an absolute minimum number of access, tote roads, and other travelways necessary to conduct the lessee's operations, the location of which shall be designated by [Forest] Supervisor prior to the time of their construction. Operations shall be conducted in a manner that will offer the least possible disturbance to wildlife on or adjacent to the leased land.</p> <p><u>MBNF LRMP:</u></p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Prohibit new disturbances such as construction, drilling, new recreation facilities, logging, or other concentrated intense activities according to the following table. Short-term projects designed to improve habitat such as prescribed burning are permitted: sage-grouse breeding complexes March 1 through June 30, 2 miles.</p>				
132	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside connectivity habitat areas:</p> <p><u>Casper RMP:</u> Avoid surface-disturbing and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 to July 15 (TLS).</p> <p><u>Bates Hole and Fish Creek/Willow Creek:</u> Occupied sage-grouse leks will have a ¼-mile CSU buffer to protect breeding habitats. Human activity will be avoided between 8 p.m. and 8 a.m. from March 1 to May 15 (TLS) within this buffer. Leks,</p>	No similar action	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside connectivity habitat areas:</p> <p>A seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and brood-rearing season would be applied in all occupied sage-grouse habitat during this period. This seasonal restriction shall also to apply to related activities that are disruptive to sage-grouse, including vehicle traffic and other human presence.</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside connectivity habitat areas:</p> <p>Surface disturbing and/or disruptive activities would be prohibited or restricted from March 15-June 30. This restriction would be applied to all identified nesting and early brood-rearing habitats inside core habitat areas within 2 miles of the lek.</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat inside connectivity habitat areas:</p> <p>Surface disturbing and/or disruptive activities would be prohibited within connectivity habitat from March 1–June 30 to protect breeding, nesting, and early brood-rearing habitats within 4 miles of the lek or lek perimeter of any occupied sage-grouse lek within identified connectivity areas. This timing limitation would be applied throughout the sage-grouse core area habitats. Activities in unsuitable habitats would be evaluated under the exception, waiver, and modification criteria and may be allowed on a case-by-case basis. Where credible data</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>which are currently displayed as points, will be displayed as polygons.</p> <p>Occupied sage-grouse leks will have a 4-mile buffer. Within this buffer, surface development or wildlife-disturbing activities will be restricted March 15 through July 15 (TLS). Also, within this 4-mile buffer (CSU), surface disturbing activities will avoid sagebrush stands of greater than 10% canopy cover. Within this 4-mile buffer, mitigate for power poles and other high profile structures that may provide raptor perches. Avoid placement of these structures if possible, or install devices to preclude raptor perching on the structures.</p> <p><u>Areas Outside of Bates Hole and Fish Creek/Willow Creek:</u></p> <p>Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sage-grouse leks. Avoid human activity between 8 p.m. and 8 a.m. from March 1 to May 15 (TLS) within 0.25 mile of the perimeter of occupied sage-grouse leks.</p> <p><u>Kemmerer RMP:</u></p> <p>Avoid surface-disturbing</p>				<p>support different timeframes for this seasonal restriction, dates could be expanded by 14 days prior or subsequent to the above dates.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>and disruptive activities in suitable Greater Sage-Grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified Greater Sage-Grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 through July 15.</p> <p><u>Newcastle RMP:</u> Avoid surface disturbing activities in suitable sage-grouse nesting and early brood-rearing habitat within two miles of an occupied lek or in identified sage-grouse nesting and early brood-rearing habitat outside the two-mile buffer from March 15 through July 15.</p> <p><u>Pinedale RMP:</u> Surface disturbing activities inside Intensively Developed Fields will be designed and implemented to minimize impacts on Greater Sage-Grouse habitats to the extent practicable. Surface disturbing activities inside Traditional Leasing Areas and Unavailable Areas will be avoided in suitable nesting and early brood-rearing habitat within 2 miles of occupied</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Greater Sage-Grouse leks from March 15 to July 15.</p> <p><u>Rawlins RMP:</u></p> <p>Avoid surface disturbing and disruptive activities, geophysical surveys, and organized recreational activities (events) that require a special use permit in suitable Greater Sage-Grouse and nesting and early brood rearing habitat within 2 miles of the perimeter of an occupied Greater Sage-Grouse lek, or in identified Greater Sage-Grouse nesting and early brood rearing habitat, from March 1 to July 15.</p> <p><u>Green River RMP:</u></p> <p>To protect grouse nesting habitat, seasonal restrictions will apply within appropriate distances from the grouse lek. Appropriate distances (up to two miles) and time frames (usually from March 1 through July 15) will be determined on a case-by-case basis. Exceptions to seasonal restrictions may be granted, provided the criteria in can be met.</p> <p>No disruptive activities in the Jack Morrow Hills planning area are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>limitations will be determined and applied on a case-by-case basis. In addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality.</p> <p><u>TBNG LRMP:</u></p> <p>To help reduce disturbances to nesting sage-grouse, prohibit the following activities within 2 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., roads, water impoundments, oil and gas facilities) 2. Reclamation 3. Gravel mining operations 4. Drilling of water wells 5. Oil and gas drilling 6. Training of hunting dogs. <p>To reduce disturbances to nesting sage-grouse, do not authorize the following activities within 2 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., pipelines, utilities, fencing) 2. Seismic exploration 3. Workover operations for maintenance of oil and 				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>gas wells</p> <p>4. Permitted recreation events involving large groups of people.</p> <p>When constructing facilities or structures within 2 miles of a sage-grouse active display ground, design them to discourage raptor perching by maintaining a low profile or using perch inhibitors.</p> <p>Manage display ground viewing activities to reduce disturbances and adverse impacts to the birds on the display grounds.</p> <p><u>MBNF LRMP:</u></p> <p>Prohibit new disturbances such as construction, drilling, new recreation facilities, logging, or other concentrated intense activities according to the following table. Short-term projects designed to improve habitat such as prescribed burning are permitted: sage-grouse breeding complexes March 1 through June 30, 2 miles.</p>				
133	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat outside sage-grouse core and connectivity habitat areas:</p> <p><u>Casper RMP:</u></p> <p>Avoid surface-disturbing</p>	No similar action	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat outside sage-grouse priority and connectivity habitat areas:</p> <p>A seasonal restriction on exploratory drilling that prohibits surface-</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat outside sage-grouse core and connectivity habitat areas:</p> <p>Surface disturbing and/or disruptive activities would be prohibited or restricted</p>	<p>Sage-grouse breeding, nesting, and early brood-rearing habitat outside sage-grouse core and connectivity habitat areas:</p> <p>Surface disturbing and/or disruptive activities would be prohibited from March</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>and disruptive activities in suitable sage-grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 to July 15 (TLS).</p> <p><u>Bates Hole and Fish Creek/Willow Creek:</u></p> <p>Occupied sage-grouse leks will have a ¾-mile CSU buffer to protect breeding habitats. Human activity will be avoided between 8 p.m. and 8 a.m. from March 1 to May 15 (TLS) within this buffer. Leks, which are currently displayed as points, will be displayed as polygons.</p> <p>Occupied sage-grouse leks will have a 4-mile buffer. Within this buffer, surface development or wildlife-disturbing activities will be restricted March 15 through July 15 (TLS). Also, within this 4-mile buffer (CSU), surface disturbing activities will avoid sagebrush stands of greater than 10% canopy cover. Within this 4-mile buffer, mitigate for power poles and other high profile structures that may provide raptor perches. Avoid placement of these</p>		<p>disturbing activities during the nesting and brood-rearing season would be applied in all occupied sage-grouse habitat during this period. This seasonal restriction would also apply to related activities that are disruptive to sage-grouse, including vehicle traffic and other human presence.</p>	<p>from March 15–June 30. This restriction would be applied to all identified nesting and early brood-rearing habitats outside core habitat areas within 2 miles of the lek.</p>	<p>15–June 30 to protect sage-grouse nesting and early brood rearing habitats within 2 miles of the lek or lek perimeter of any occupied lek located outside core or connectivity areas.</p> <p>Where credible data support different timeframes for this restriction, dates could be expanded by 14 days prior or subsequent to the above dates.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>structures if possible, or install devices to preclude raptor perching on the structures.</p> <p><u>Areas Outside of Bates Hole and Fish Creek/Willow Creek:</u></p> <p>Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sage-grouse leks. Avoid human activity between 8 p.m. and 8 a.m. from March 1 to May 15 (TLS) within 0.25 mile of the perimeter of occupied sage-grouse leks.</p> <p><u>Kemmerer RMP:</u></p> <p>Avoid surface-disturbing and disruptive activities in suitable Greater Sage-Grouse nesting and early brood-rearing habitats within 2 miles of an occupied lek, or in identified Greater Sage-Grouse nesting and early brood-rearing habitats outside the 2-mile buffer from March 15 through July 15.</p> <p><u>Newcastle RMP:</u></p> <p>Avoid surface disturbing activities in suitable sage-grouse nesting and early brood-rearing habitat within two miles of an occupied lek or in identified sage-grouse nesting and early brood-rearing habitat</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>outside the two-mile buffer from March 15 through July 15.</p> <p><u>Pinedale RMP:</u> Surface disturbing activities inside Intensively Developed Fields will be designed and implemented to minimize impacts on Greater Sage-Grouse habitats to the extent practicable.</p> <p>Surface disturbing activities inside Traditional Leasing Areas and Unavailable Areas will be avoided in suitable nesting and early brood-rearing habitat within 2 miles of occupied Greater Sage-Grouse leks from March 15 to July 15.</p> <p><u>Rawlins RMP:</u> Avoid surface disturbing and disruptive activities, geophysical surveys, and organized recreational activities (events) that require a special use permit in suitable Greater Sage-Grouse nesting and early brood rearing habitat within 2 miles of the perimeter of an occupied Greater Sage-Grouse lek, or in identified Greater Sage-Grouse nesting and early brood rearing habitat, from March 1 to July 15.</p> <p><u>Green River RMP:</u> To protect grouse nesting</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>habitat, seasonal restrictions will apply within appropriate distances from the grouse lek. Appropriate distances (up to two miles) and time frames (usually from March 1 through July 15) will be determined on a case-by-case basis. Exceptions to seasonal restrictions may be granted, provided the criteria in can be met.</p> <p>No disruptive activities in the Jack Morrow Hills planning area are allowed in nesting and early brood-rearing habitats (March 15 to July 15). These limitations will be determined and applied on a case-by-case basis. In addition, nesting and early brood-rearing habitats will be protected from habitat degradation, and measures will be taken to improve habitat quality.</p> <p><u>TBNG LRMP:</u></p> <p>To help reduce disturbances to nesting sage-grouse, prohibit the following activities within 2 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., roads, water impoundments, oil and gas facilities) 2. Reclamation 				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>3. Gravel mining operations 4. Drilling of water wells 5. Oil and gas drilling 6. Training of hunting dogs.</p> <p>To reduce disturbances to nesting sage-grouse, do not authorize the following activities within 2 miles of active display grounds from March 1 to June 15:</p> <ol style="list-style-type: none"> 1. Construction (e.g., pipelines, utilities, fencing) 2. Seismic exploration 3. Workover operations for maintenance of oil and gas wells 4. Permitted recreation events involving large groups of people. <p>When constructing facilities or structures within 2 miles of a sage-grouse active display ground, design them to discourage raptor perching by maintaining a low profile or using perch inhibitors.</p> <p>Manage display ground viewing activities to reduce disturbances and adverse impacts to the birds on the display grounds.</p> <p><u>BTNF LRMP:</u></p> <p>There are numerous areas that are leased that have No Surface Occupancy, Timing-Limitation, and/or</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>Controlled-Surface-Use stipulations. Leases are issued with unique wildlife protection stipulations. Lessees are required to keep an absolute minimum number of access, tote roads, and other travelways necessary to conduct the lessee's operations, the location of which shall be designated by [Forest] Supervisor prior to the time of their construction. Operations shall be conducted in a manner that will offer the least possible disturbance to wildlife on or adjacent to the leased land.</p> <p><u>MBNF LRMP:</u> Prohibit new disturbances such as construction, drilling, new recreation facilities, logging, or other concentrated intense activities according to the following table. Short-term projects designed to improve habitat such as prescribed burning are permitted: sage-grouse breeding complexes March 1 through June 30, 2 miles.</p>				
134	<p>Sage-grouse winter concentration areas: <u>Casper RMP:</u> As sage-grouse winter habitats are designated, a TLS will restrict activities</p>	<p>Sage-grouse winter concentration areas: In priority habitat, the following conservation measures would be provided as terms and</p>	Same as Alternative B	<p>Sage-grouse winter concentration areas: Surface disturbing and/or disruptive activities in mapped sage-grouse winter concentration areas</p>	<p>Sage-grouse winter concentration areas: Surface disturbing and/or disruptive activities in sage-grouse winter concentration areas would</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>from November 15 to March 14. Within the designated winter habitats, CSU for surface disturbing activities in sagebrush stands of greater than 20% canopy cover.</p> <p><u>Newcastle RMP:</u> To protect important raptor and/or sage- and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization.</p> <p>Surface disturbing and disruptive activities would be avoided in sage-grouse winter habitat from November 15 through March 14.</p> <p><u>Pinedale RMP:</u> All surface disturbing activities in Traditional Leasing Areas and Unavailable Areas are prohibited in Greater Sage-Grouse winter concentration areas from November 15 through March 15.</p> <p><u>Rawlins RMP:</u> Surface disturbing and disruptive activities potentially disruptive to delineated Greater Sage-Grouse and sharp-tailed grouse winter</p>	<p>conditions of the approved RMP: New surface occupancy would not be allowed on federal leases within priority habitats during any time of the year.</p>		<p>within sage-grouse core habitat areas would be prohibited from November 15-March 14.</p> <p>Surface disturbing and/or disruptive activities in mapped sage-grouse winter concentration areas supporting connectivity populations would be prohibited from November 15-March 14.</p>	<p>be prohibited from December 1–March 14 to protect core area populations of sage-grouse that use these winter concentration habitats. This timing limitation would be applied throughout the sage-grouse core area habitats.</p> <p>Activities in unsuitable habitats within core habitat areas would be evaluated under the exception, waiver, and modification criteria and could be allowed on a case-by-case basis.</p> <p>Protection of additional areas of winter concentration that are not located within the current core area boundaries would be implemented where winter concentration areas are identified as supporting populations of sage-grouse that attend leks within core habitat.</p> <p>Appropriate seasonal timing restrictions and habitat protection measures would be considered and evaluated in all identified winter concentration areas.</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>concentration areas are prohibited during the period of November 15 to March 14 for the protection of Greater Sage-Grouse and sharp-tailed grouse winter concentration areas.</p> <p><u>Green River RMP:</u> Seasonal restrictions for sage-grouse winter concentration areas may be identified on a case by case basis. Should additional seasonal restrictions be identified, exceptions would be handled on a case by case basis and include site specific analysis.</p> <p>Disruptive activities in the Jack Morrow Hills planning area will be prohibited in Greater Sage-Grouse winter concentration areas typically from November 15 to March 14. These areas and/or dates are subject to change based on new data and scientific information.</p> <p><u>BTNF LRMP:</u> There are numerous areas that area leased that have No Surface Occupancy, Timing-Limitation, and/or Controlled-Surface-Use stipulations. Leases are issued with unique wildlife protection stipulations.</p>				

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
Predation					
135	<p>The BLM/Forest Service would support other agencies in their efforts to minimize impacts from predators.</p> <p><u>TBNG LRMP:</u></p> <p>Under a Memorandum of Understanding, the APHIS has primary responsibility for predator damage control on most National Forest System lands for actions initiated by APHIS. This includes responsibilities for ensuring compliance with the National Environmental Policy Act and the Endangered Species Act. To date, APHIS has completed and issued a Record of Decision and Final Environmental Impact Statement for their national animal damage control program and have also issued several statewide Decision Notices and Environmental Assessments for predator damage control.</p> <p>Forest Service responsibilities in predator damage control on National Forest System lands are primarily limited to ensuring that APHIS programs comply with direction in Land and</p>	No similar action	No similar action	<p>In addition to Alternative A:</p> <p>The BLM/Forest Service would implement strategies and techniques in land management decisions that address predators shown to pose a threat to sage-grouse (Appendix F).</p> <p>The BLM/Forest Service would support and encourage other agencies in their efforts to minimize impacts from predators on sage-grouse where needs have been documented.</p>	Same as Alternative D

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	Resource Management Plans for visitor and user safety, mitigation for sensitive wildlife species, and pesticide use.				
Noise					
136	<p><u>Kemmerer RMP:</u> Locate facilities or use BMPs to minimize impacts of continuous noise on species relying on aural cues for successful breeding. This requirement is based on current information, but may be subject to change in the future based upon new information.</p> <p><u>Pinedale RMP:</u> Noise generating activities in Traditional Leasing Areas and Unavailable Areas will be minimized through the application of BMPs, such as high-efficiency mufflers.</p> <p><u>TBNG LRMP:</u> To help prevent reproductive failure, limit noise on sage-grouse display grounds from nearby facilities and activities to 49 decibels (10 dBA above background noise) from March 1 to June 15.</p> <p>Prohibit development or operations of facilities within 2 miles of a sage-</p>	Noise would be limited to less than 10 decibels above ambient measures (20-24 dBA) at sunrise at the perimeter of a lek during active lek season.	Same as Alternative B	Same as Alternative A	<p>The BLM/Forest Service would work with proponents to limit project related noise where it would be expected to reduce functionality of habitats that support core and connectivity habitat area populations.</p> <p>The BLM/Forest Service would evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate.</p> <p>BLM/Forest Service's near-term goal would be to limit noise sources that would be expected to negatively impact core habitat area sage-grouse populations and to continue to support the establishment of ambient baseline noise levels for occupied core habitat area leks.</p> <p>As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate limitations</p>

Action Number	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>grouse display ground if these activities would exceed a noise level of more than 10 decibels above the background noise level (39 db), at 800 feet from the noise source, from March 1 to June 15.</p> <p>Limit noise levels from oil and gas production facilities within 0.25 mile of developed recreation sites to be no more than 70 decibels, as measured by the A-weighted Sound level (dBA) system of measurements, at the edge of the developed site. This standard applies only to constant, routine, day-to-day production noises. It doesn't apply to noise from drilling and testing of production nor temporary noises such as work-over rigs and maintenance or repair tasks.</p> <p><u>BTNF LRMP:</u></p> <p>Not directly addressed: Leases are issued with unique wildlife protection stipulations. Operations shall be conducted in a manner that will offer the least possible disturbance to wildlife on or adjacent to the leased land.</p>				<p>would be implemented where necessary to minimize potential for noise impacts on sage-grouse core population behavioral cycles.</p> <p>As new research is completed, new specific limitations would be coordinated with the WGFD and partners.</p> <p>Noise levels at the 0.6 mile perimeter of the lek should not exceed 10 dBA above ambient noise.</p>

Table 2-2 shows the acreage values associated with the land use restrictions presented in Table 2-1.

Table 2-2. Land Use Restrictions by Alternative

Resource/Activity	Land Use Restriction	Alternative A (Continuation of Existing Management) (acres)	Alternative B (acres)	Alternative C (acres)	Alternative D (acres)	Alternative E (Preferred Alternative) (acres)
Surface Disturbing Activities	Prohibited Areas	68,550	0	0	0	304,970
	Restricted Areas	437,680	0	0	75,870	21,950
Fluid Mineral Leasing	Unavailable	871,780	6,809,580	16,878,220	964,860	892,090
	No Surface Occupancy	40,980	2,082,140	2,082,140	0	689,300
	Controlled Surface Use	5,015,210	0	0	2,117,990	6,146,570
Rights-of-Way	Exclusion Areas	285,930	5,141,340	11,531,340	5,141,340	285,930
	Avoidance Areas	2,460,340	6,390,010	0	1,211,030	6,065,960
Mineral Materials	Closed Areas	274,860	5,000,400	5,000,400	274,860	274,860
Locatable Minerals	Existing Withdrawals	1,560,050	1,560,050	1,560,050	1,560,050	1,560,050
	Proposed Withdrawals	117,370	3,442,120	3,442,120	117,370	3,442,120
Solid Leasable Minerals (non-energy)	Closed Areas	234,230	5,000,400	5,000,400	234,230	234,230
Wind Energy	Closed Areas	437,120	5,000,400	11,531,340	5,000,400	5,002,520
	Restricted Areas	3,888,930	6,530,940	0	501,830	6,528,810

Table 2-3 shows the number of acres of surface and subsurface acres (for conventional oil and gas exploration and development) that are subject to leasing restrictions designed to protect sage-grouse habitat. The acreage values provided in the table are organized by the type and level of restriction and mineral development potential.

Table 2-3. Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential for Conventional Oil and Gas

Fluid Mineral Lease Conditional Requirement	Hydrocarbon Development Potential						Total ³	
	None	Negligible	Very Low	Low	Moderate	High		Very High
ALTERNATIVE A (Continuation of Existing Management)								
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	2,319,820	41,270	3,863,490	7,016,810	1,538,940	412,130	442,160	15,634,620
Available for Leasing, Subject to Moderate Constraints ¹	276,970	25,860	1,300,340	2,198,270	708,180	232,660	256,330	4,998,610
Available for Leasing, Subject to Major Constraints ¹	2,890	630	3,500	24,320	5,430	1,830	2,140	40,740
Unavailable for Leasing ²	137,070	0	234,400	347,080	104,050	690	0	823,290
ALTERNATIVE B								
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	2,154,940	57,850	3,243,090	6,405,270	1,731,880	526,130	492,640	14,611,800
Available for Leasing, Subject to Moderate Constraints ¹	0	0	0	0	0	0	0	0
Available for Leasing, Subject to Major Constraints ¹	6,120	850	507,050	1,138,530	239,700	70,190	117,920	2,080,360
Unavailable for Leasing ²	581,590	2,640	2,139,690	3,109,570	615,090	115,920	194,910	6,759,410
ALTERNATIVE C								
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	1,485,870	0	1,147,570	2,070,110	70,450	6,490	180	4,780,670
Available for Leasing, Subject to Moderate Constraints ¹	0	0	0	0	0	0	0	0
Available for Leasing, Subject to Major Constraints ¹	6,120	850	507,050	1,138,530	239,700	0	117,920	2,010,170

Fluid Mineral Lease Conditional Requirement	Hydrocarbon Development Potential							Total ³
	None	Negligible	Very Low	Low	Moderate	High	Very High	
Unavailable for Leasing ²	1,240,940	60,490	4,235,210	7,400,760	2,271,150	635,110	687,370	16,531,030
ALTERNATIVE D								
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	2,438,000	46,860	4,588,830	8,185,350	1,994,700	537,340	546,880	18,337,960
Available for Leasing, Subject to Moderate Constraints ¹	163,560	13,630	521,030	944,070	241,170	92,590	140,670	2,116,720
Available for Leasing, Subject to Major Constraints ¹	0	0	0	0	0	0	0	0
Unavailable for Leasing ²	134,980	0	272,930	385,430	111,110	12,110	0	916,560
ALTERNATIVE E (Preferred Alternative)								
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	2,123,430	44,890	3,072,880	6,106,310	1,563,500	435,930	357,000	13,703,940
Available for Leasing, Subject to Moderate Constraints ¹	441,960	15,570	1,726,340	2,849,350	638,310	156,420	316,550	6,144,500
Available for Leasing, Subject to Major Constraints ¹	34,110	30	348,190	204,510	39,400	49,010	13,990	689,240
Unavailable for Leasing ²	137,030	0	244,870	354,720	105,760	690	0	843,070

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.

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

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

Table 2-4 shows the number of acres of surface and subsurface acres (for coalbed natural gas exploration and development) that are subject to leasing restrictions designed to protect sage-grouse habitat. The acreage values provided in the table are organized by the type and level of restriction and mineral development potential.

Table 2-4. Areas of Fluid Mineral Lease Conditional Requirements by Hydrocarbon Potential for Coalbed Natural Gas

Fluid Mineral Lease Conditional Requirement	Hydrocarbon Development Potential						Total ³
	None	Negligible	Very Low	Low	Moderate	High	
ALTERNATIVE A (Continuation of Existing Management)							
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	9,899,620	602,670	2,630,490	1,962,150	407,320	141,230	15,643,480
Available for Leasing, Subject to Moderate Constraints ¹	2,594,430	174,500	953,550	866,440	217,570	187,560	4,944,050
Available for Leasing, Subject to Major Constraints ¹	13,340	1,830	6,650	11,660	2,570	4,760	40,810
Unavailable for Leasing ²	439,350		366,680	8,830	8,430	4	823,294
ALTERNATIVE B							
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	8,873,000	463,850	2,722,080	1,847,370	473,440	243,560	14,623,300
Available for Leasing, Subject to Moderate Constraints ¹	0	0	0	0	0	0	0
Available for Leasing, Subject to Major Constraints ¹	932,090	149,600	402,470	475,960	76,040	43,630	2,079,790
Unavailable for Leasing ²	4,050,800	301,210	1,196,230	989,580	139,580	74,850	6,752,250
ALTERNATIVE C							
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	4,186,020	1,080	469,630	125,080	5,510	0	4,787,320
Available for Leasing, Subject to Moderate Constraints ¹	0	0	0	0	0	0	0
Available for Leasing, Subject to Major Constraints ¹	932,090	149,600	402,470	475,960	76,040	43,630	2,079,790

Fluid Mineral Lease Conditional Requirement	Hydrocarbon Development Potential						Total ³
	None	Negligible	Very Low	Low	Moderate	High	
Unavailable for Leasing ²	8,697,240	763,990	3,435,450	2,708,310	605,640	317,630	16,528,260
ALTERNATIVE D							
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	1,1342,970	636,130	3,110,650	2,470,950	525,960	255,510	18,342,170
Available for Leasing, Subject to Moderate Constraints ¹	1,144,200	89,500	405,020	336,570	78,630	62,900	1,116,820
Available for Leasing, Subject to Major Constraints ¹	0	0	0	0	0	0	0
Unavailable for Leasing ²	436,630	39,430	402,630	29,430	8,430	4	916,554
ALTERNATIVE E (Preferred Alternative)							
Available for Leasing, Subject to the Terms and Conditions of the Standard Lease Form	8,521,800	436,200	2,464,210	1,676,670	417,390	199,070	13,715,340
Available for Leasing, Subject to Moderate Constraints ¹	3,467,850	315,430	1,011,430	1,053,070	177,950	112,610	6,138,340
Available for Leasing, Subject to Major Constraints ¹	490,040	13,440	70,520	98,360	9,250	6,730	688,340
Unavailable for Leasing ²	453,650	0	372,150	8,850	8,430	4	843,084

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.

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

³Acres values to not include areas that have not been assessed.

Table 2-5. Threats to Greater Sage-Grouse and Associated Management Actions

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
Oil and Gas Development					
Unleased Fluid Minerals					
Areas closed to fluid	871,780 acres	6,809,580 acres	16,878,220 acres	964,860 acres	892,090 acres

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
mineral leasing (acres)	Existing acres closed to fluid mineral leasing (mostly WSAs).	No new areas would be leased in sage-grouse priority habitat.	No new areas would be leased in sage-grouse priority habitat and sage-grouse general habitat.	Existing acres closed to fluid mineral leasing (mostly WSAs). Plus, 2 additional SMAs would be created closing 119,499 acres to leasing.	No new areas would be closed to leasing. The Wyoming core area strategy would apply (timing, distance, disturbance, and density restriction) in sage-grouse core habitat.
A minimum lease size of 640 contiguous acres of federal mineral estate would be applied within sage-grouse core habitat areas.	A minimum lease size will not be applied within sage-grouse core habitat areas.	A minimum lease size would not be applied within sage-grouse priority habitat areas (sage-grouse priority habitat areas are not available for oil and gas leasing).	A minimum lease size would not be applied within sage-grouse priority habitat areas (sage-grouse priority habitat areas are not available for oil and gas leasing).	A minimum lease size would not be applied within sage-grouse core habitat areas.	<p>A minimum lease size of 640 contiguous acres of federal mineral estate would be applied within sage-grouse core habitat areas.</p> <p>Smaller parcels could be leased only when 640 contiguous acres of federal mineral estate is not available and leasing is necessary.</p> <p>By implementing a minimum lease size, the BLM/Forest Service could limit the density of oil and gas or mining activities to no more than an average of 1 location per 640 acres. In areas that previously may have been leased as a 40-acre parcel, this would not be possible. By leasing a minimum of 640 acres, the BLM and Forest Service could commit to only one surface</p>

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					disturbance per square mile rather than multiple disturbances. This may require sharing of well pads to meet valid existing rights.
Leased Fluid Minerals					
Restrictions on surface disturbance for leased fluid minerals.	NSO on 40,980 acres CSU on 5,015,210 acres Various stipulations apply, but most are not specific to Greater Sage-Grouse or Greater Sage-Grouse habitat.	NSO on 2,082,140 acres A 4-mile NSO would be applied around leks in sage-grouse priority habitat and limit disturbances to 1 per section with no more than 3 percent disturbance in that section. Sage-grouse nesting/early brood-rearing habitat inside priority habitat areas: A seasonal restriction would be applied on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all sage-grouse priority habitat during this period. Sage-grouse winter concentration areas: In priority habitat, the following conservation measures would be	NSO on 2,082,140 acres A 4-mile NSO would be applied around leks in sage-grouse priority habitat and limit disturbances to 1 per section with no more than 3 percent disturbance in that section. Sage-grouse nesting/early brood-rearing habitat in priority and general habitat areas: A seasonal restriction would be applied on exploratory drilling that prohibits surface-disturbing activities during the nesting and brood-rearing season in all occupied sage-grouse habitat during this period. This seasonal restriction would also to apply to related activities that are disruptive to sage-grouse, including	CSU on 2,117,990 acres A 0.6 mile NSO would be applied around leks in sage-grouse core habitat and do not exceed an average of three energy production locations and/or transmission structures per 640 acres within the DDCT; and the combined value of existing and proposed disturbances within each DDCT will not exceed 9 percent loss of sagebrush habitat. Sage-grouse nesting/early brood-rearing habitat inside core habitat areas: Surface disturbing and/or disruptive activities are prohibited or restricted from March 15-June 30. Sage-grouse winter concentration areas:	NSO on 689,300 acres CSU on 6,146,570 acres A 0.6 mile NSO would be applied around leks in sage-grouse core habitat and limit the density of oil and gas or mining activities to no more than an average of 1 location per 640 acres; and to limit all surface disturbance (any program area) to no more than 5% of the core landscape using the DDCT process described in Appendix I. Sage-grouse nesting/early brood-rearing habitat in core habitat areas: Surface disturbing and/or disruptive activities would be prohibited from March 1-June 30 to protect sage-grouse breeding, nesting, and early

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		<p>provided as terms and conditions of the approved RMP: New surface occupancy would not be allowed on federal leases within priority habitats during any time of the year. Unless the lease is entirely within priority habitats, a 4-mile NSO would be applied around the lek.</p>	<p>vehicle traffic and other human presence. Sage-grouse winter concentration areas: In priority habitat, the following conservation measures would be provided as terms and conditions of the approved RMP: New surface occupancy would not be allowed on federal leases within priority habitats during any time of the year.</p>	<p>Surface disturbing and/or disruptive activities in mapped sage-grouse winter concentration areas within sage-grouse core habitat areas would be prohibited from November 15-March 14. Surface disturbing and/or disruptive activities in mapped sage-grouse winter concentration areas supporting connectivity populations would be prohibited from November 15-March 14.</p>	<p>brood rearing habitat. This timing limitation would be applied throughout the sage-grouse core area habitats. Sage-grouse winter concentration areas: Surface disturbing and/or disruptive activities in sage-grouse winter concentration areas would be prohibited from December 1–March 14 to protect core area populations of sage-grouse that use these winter concentration habitats. This timing limitation would be applied throughout the sage-grouse core area habitats. Activities in unsuitable habitats within core habitat areas would be evaluated under the exception, waiver, and modification criteria and could be allowed on a case-by-case basis. Protection of additional areas of winter concentration that are not located within the current core area boundaries, would be implemented where</p>

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
					winter concentration areas are identified as supporting populations of Greater Sage-Grouse that attend leks within core. Appropriate seasonal timing restrictions and habitat protection measures would be considered and evaluated in all identified winter concentration areas.
<p>Summary of Impacts to Greater Sage-Grouse from Oil and Gas Development</p>	<p>Alternatives B and C close core/priority habitat to surface occupancy, but with exceptions, which responds to the objective (identified in the COT Report, (USFWS 2013)) to stop population declines and habitat loss. There is an urgent need to “stop the bleeding” of continued population declines and habitat losses by acting immediately to eliminate or reduce the impacts contributing to population declines and range erosion. Alternatives B and C close Greater Sage-Grouse habitat to fluid mineral leasing – the greater number of acres protected from surface disturbing and disruptive activities, the greater reduction in potential activities known to negatively impact Greater Sage-Grouse and Greater Sage-Grouse habitat.</p> <p>The action alternatives include the following conservation measures identified in the COT Report specific to Energy Development:</p> <ol style="list-style-type: none"> 1. Avoid energy development in PACs (Doherty et al. 2010). Identify areas where leasing is not acceptable, or not acceptable without stipulations for surface occupancy that maintains sage-grouse habitats. 2. If avoidance is not possible within PACs due to pre-existing valid rights, adjacent development or split estate issues, development should only occur in non-habitat areas, including all appurtenant structures, with an adequate buffer that is sufficient to preclude impacts to sage-grouse habitat from noise and other human activities. <p>By limiting disturbances within sage-grouse priority habitat (Alternative D and E), both sage-grouse priority habitat and sage-grouse general habitat (Alternative C), the action of reducing threats to intact shrub land would have more restrictions on fluid mineral development than Alternative A. See Chapter 4 for a complete description of impacts from fluid mineral leasing on Greater Sage-Grouse.</p>				
Infrastructure/Anthropogenic					
ROW exclusion and avoidance areas	285,930 acres would be ROW exclusion areas. Various ROW avoidance areas designated, but most are not specific to protect Greater Sage-Grouse and Greater	5,141,340 acres would be ROW exclusion areas. No new acres of avoidance since sage-grouse priority habitat would be an exclusion	11,531,340 acres would be ROW exclusion areas. No new acres of avoidance since sage-grouse priority habitat and sage-grouse general habitat would	5,141,340 acres would be ROW exclusion areas. No new acres of avoidance since sage-grouse core habitat would be an exclusion	285,930 acres would be ROW exclusion areas. New acres of avoidance in sage-grouse core habitat. Portions of sage-

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	Sage-Grouse habitat.	area. General sage-grouse habitat areas would be managed as avoidance areas for new ROWs or SUAs.	be an exclusion area.	area. General sage-grouse habitat areas would be available for new ROWs or SUAs, subject to BMPs.	grouse general habitat areas would be managed as ROW avoidance areas. Within sage-grouse general habitat: Where new ROWs/SUAs are necessary in general sage-grouse habitat, new ROWs/SUAs would be co-located within existing ROWs/SUAs. Appropriate sage-grouse seasonal timing constraints would be applied.
Avoidance areas for large transmission lines (>240kV) corridors	2,460,340 acres would be ROW avoidance areas. ROW corridors have been designated and are not specific to protect Greater Sage-Grouse and Greater Sage-Grouse habitat.	6,390,010 acres would be ROW avoidance areas. In sage-grouse priority habitat new transmission corridors would not be authorized. New above-ground transmission structures would be prohibited both inside and outside existing corridors.	No avoidance areas for large transmission lines identified.	1,211,030 acres would be ROW avoidance areas. Sage-grouse core and connectivity habitat areas: New transmission projects would be allowed in existing designated utility corridors. New transmission projects would be allowed within the proposed 2-mile wide transmission line corridor through sage-grouse core habitat population areas in south-central and southwestern Wyoming and within one half mile	6,065,960 acres would be ROW avoidance areas. New transmission projects would be allowed within the 2-mile wide transmission line route through sage-grouse core habitat population areas in south-central and southwestern Wyoming and within 0.5 on either side of existing 115 kV or larger transmission lines (creating a route no wider than 1 mile). New transmission projects proposed outside of these areas would be considered

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
				either side of existing 115 kV or larger transmission lines.	where it can be demonstrated that declines in sage-grouse populations could be avoided through project design and/or mitigation. New electric distribution lines would be buried where feasible. If not feasible, overhead lines would be located at least 0.6 miles from the perimeter of occupied Greater Sage-Grouse leks and raptor perch deterrents would be installed.
Wind energy management	Wind energy development would be prohibited on 437,120 acres. Wind energy development would be allowed within sage-grouse core habitat areas, except in areas that are currently unavailable due to the need to protect sensitive resources.	Wind energy development would be prohibited on 5,000,400 acres. Wind energy development would be prohibited in sage-grouse priority and general habitat areas	Wind energy development would be prohibited on 11,531,340 acres. Wind energy development would be prohibited in sage-grouse priority and general habitat areas	Wind energy development would be prohibited on 5,000,400 acres. Wind energy development would be prohibited in sage-grouse core habitat areas, unless it can be sufficiently demonstrated that the development activity would not result in declines of sage-grouse core habitat populations. Sufficient demonstration of "no declines" should be coordinated with the WGFD and USFWS.	Wind energy development would be prohibited on 5,002,520 acres. Wind energy development would be prohibited in sage-grouse core habitat areas, unless it can be sufficiently demonstrated that the development activity would not result in declines of sage-grouse core habitat populations. Sufficient demonstration of "no declines" should be coordinated with the WGFD and USFWS.

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
				Areas that are currently unavailable due to the need to protect sensitive resources would remain unavailable to wind energy development.	Areas that are currently unavailable due to the need to protect sensitive resources would remain unavailable to wind energy development.
Travel management open/closed/limited areas respectively	<p>Motorized travel would be limited to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.</p> <p>Travel management planning on National Forest and National Grasslands is complete. Motorized travel is restricted to designated routes and areas.</p>	<p>Motorized travel would be limited to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.</p> <p>Activity level travel plans would be completed within five years of the record of decision.</p>	<p>Limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.</p> <p>Activity level travel plans would be completed within five years of the record of decision.</p> <p>New road construction would be prohibited within 4 miles of active sage-grouse leks, and new road construction would be avoided in sage-grouse priority and general habitat</p>	<p>Limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.</p> <p>New roads would avoid areas within 0.25 mile of the perimeter of occupied sage-grouse leks within sage-grouse core habitat areas.</p>	<p>Limit motorized travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed.</p> <p>New primary and secondary (BLM route category) or Route Category level 4 and 5 (Forest Service) roads would avoid areas within 1.9 miles of the perimeter of occupied sage-grouse leks within sage-grouse core habitat areas.</p> <p>Other new roads would avoid areas within 0.6 miles of the perimeter of occupied sage-grouse leks within core habitat areas.</p>
Summary of Impacts to Greater Sage-Grouse from Infrastructure	<p>Alternatives B and C close priority habitat to surface occupancy, but with exceptions, which responds to the objective (identified in the COT Report [USFWS 2013]) to stop population declines and habitat loss. There is an urgent need to “stop the bleeding “of continued population declines and habitat losses by acting immediately to eliminate or reduce the impacts contributing to population declines and range erosion. Alternatives B and C excludes priority Greater Sage-Grouse habitat areas from new BLM ROW or Forest Service Special Use Authorization (SUA) Permits; new transmission corridors would not be authorized in priority and connectivity habitats; and motorized travel would be limited to existing roads, primitive roads, and trails at</p>				

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	<p>a minimum, until such time as travel management planning is complete and routes are either designated or closed. The greater number of acres protected from surface disturbing, disruptive activities and overhead structures, the greater reduction in potential activities known to negatively impact Greater Sage-Grouse habitat.</p> <p>Alternatives B and C are in agreement with the following conservation objectives/options identified in the COT Report specific to infrastructure:</p> <ol style="list-style-type: none"> 1. Avoid development of infrastructure within PACs (objective). 2. Avoid construction of these features in sage-grouse habitat, both within and outside of PACs (option). 3. Restrictions limiting use of roads should be enforced (option). <p>Alternative A, in general has the least protections for Greater Sage-Grouse and Greater Sage-Grouse habitat from development of infrastructure. Alternative B would have more restrictions on route construction and upgrades, as well as ROWs than Alternative A, D, and E, but would have fewer than Alternative C. See Chapter 4 for a complete description of impacts from lands and realty on Greater Sage-Grouse. See Chapter 4 for a complete description of impacts from travel management on Greater Sage-Grouse.</p>				
Agriculture/Urbanization					
Areas identified for disposal	Various parcels identified for disposal for consolidation of management without regard for Greater Sage-Grouse habitat.	Identify areas where acquisitions (including subsurface mineral rights) or conservation easements, would benefit sage-grouse habitat. Retain public ownership of priority habitat.		Various parcels identified for disposal for consolidation of management without regard for Greater Sage-Grouse habitat.	Identify areas where acquisitions (including subsurface mineral rights) or conservation easements, would benefit sage-grouse habitat. Retain public ownership of priority habitat.
Areas identified for acquisition	No parcels identified in existing plans for land tenure adjustments.	The BLM/Forest Service would seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase, or other land tenure adjustments in order to best conserve, enhance, or restore Greater Sage-Grouse habitat.	The BLM/Forest Service would strive to acquire Greater Sage-Grouse habitat in sage-grouse priority habitat and sage-grouse general habitat.	The BLM/Forest Service would acquire lands based on a variety of economic resources criteria. Consider land tenure adjustments outside of sage-grouse core habitat if it can be exchanged for lands within sage-grouse core habitat.	The BLM/Forest Service would utilize sage-grouse habitat requirements to prioritize parcels for land tenure adjustments within core habitats.
Summary of Impacts to Greater Sage-Grouse from Agriculture/	Across all action alternatives, the BLM would take advantage of opportunities to consolidate Greater Sage-Grouse habitat. Although agriculture and urbanization have been identified as threats in Wyoming, the BLM has limited management authority over those				

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
<p>Urbanization</p>	<p>types of activities.</p> <p>The action alternatives are in agreement with the following conservation objectives/options identified in the COT Report specific to infrastructure:</p> <ol style="list-style-type: none"> 1. Limit urban and exurban development in sage-grouse habitats and maintain intact native sagebrush plant communities (objective). 2. Acquire and manage sage-grouse habitat to maintain intact ecosystems (option). <p>See Chapter 4 for a complete description of impacts from land tenure on Greater Sage-Grouse.</p>				
<p>Areas prioritized for vegetation treatments</p>	<p>Few restrictions on habitat restoration actions, with the most potential for vegetation disturbance. There would be no prioritization of habitat restoration in Greater Sage-Grouse habitat.</p> <p><u>TBNG LRMP:</u></p> <p>In big sagebrush and sage-grouse wintering habitat, do not prescribe burn or treat with herbicides unless it can be demonstrated to be beneficial for local sage-grouse populations. Treatments should not be conducted where shrub canopy cover of sagebrush averages less than 15%. Limit treatments to less than 80-acre patches and no more than 20% of the sagebrush stands in the wintering habitat. Big sagebrush stands within 100 yards of meadows, riparian areas, and other</p>	<p>Across all action alternatives, treatments would be prioritized to consider Greater Sage-Grouse habitat requirements.</p>	<p>In addition to Alternative A: For vegetation treatments in sagebrush within core habitat areas, refer to Appendix A and WGFD Protocols for Treating Sagebrush to Benefit Sage-grouse (WGFD 2011, as updated). These recommended protocols would be used in determining whether proposed treatment constitutes a “disturbance” that will contribute toward the 9% threshold for habitat maintenance. Additionally, these protocols would be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation.</p>	<p>For vegetation treatments in sagebrush within core habitat areas, refer to WGFD Protocols for Treating Sagebrush to Benefit Sage-grouse. These recommended protocols will be used in determining whether proposed treatment constitutes a “disturbance” that will contribute toward the 5% threshold within sage-grouse core habitat maintenance or not. Additionally, these protocols would be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation. Treatments to enhance</p>	

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	foraging habitats should not be burned or sprayed.			<p>Treatments to enhance sagebrush/grasslands habitat for sage-grouse would be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.</p> <p>The BLM/Forest Service would work collaboratively with partners at the state and local level to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation.</p>	sagebrush/grasslands habitat for sage-grouse would be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.
Areas closed to livestock grazing	No areas identified as closed to livestock grazing.	Allotments not meeting standards due to livestock grazing in sage-grouse priority habitat would incorporate a light grazing management strategy utilizing a 20-30% forage allocation for livestock.	BLM/Forest Service-managed lands within sage-grouse priority habitat would be closed to livestock grazing.	<p>No areas identified as closed to livestock grazing.</p> <p>Retirement of grazing privileges would be maintained as an option in sage-grouse core habitat areas when the current permittee is willing to retire grazing on all or part of an allotment.</p>	<p>No areas identified as closed to livestock grazing.</p> <p>Retirement of grazing privileges would be maintained as an option in sage-grouse core habitat areas when the current permittee is willing to retire grazing on all or part of an allotment.</p>
Areas available for livestock grazing	BLM/Forest Service-managed lands within the planning area would be available for livestock grazing.	BLM/Forest Service-managed lands within sage-grouse priority habitat and sage-grouse general habitat would be available for	No areas would be available for livestock grazing on BLM/Forest Service-administered lands within priority habitat.	BLM/Forest Service-managed lands within sage-grouse core habitat and sage-grouse general habitat would be available for	BLM/Forest Service-managed lands within sage-grouse core habitat and sage-grouse general habitat would be available for

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		livestock grazing.		livestock grazing.	livestock grazing.
Wild horse and burro management	Gathers prioritized without consideration of Greater Sage-Grouse habitat requirements.	HMA's would be prioritized for gathers that are within sage-grouse priority habitat.	HMA's would be prioritized for gathers that are within sage-grouse priority habitat.	Wild horse and burro populations would be managed at an appropriate management level, utilizing sage-grouse core habitat condition as one key parameter for setting these levels, where BLM HMA's and core habitat overlap.	Within core habitat, the BLM/Forest Service would review and consider amending BLM Herd Management Area Plans (HMAPs) to incorporate sage-grouse habitat objectives and management considerations for all BLM herd management areas (HMA's).
Summary of Impacts to Greater Sage-Grouse from Grazing	Greater Sage-Grouse habitat considerations within livestock grazing allotments and wild horse management areas would be similar across all action alternatives. Range improvements are more restricted under Alternatives B and C than under Alternative D and E. Under Alternative C, the potential for increased fencing in order to prevent trespass exists. Under Alternative A, grazing would be managed to achieve the standards of rangeland health. Consequently in most scenarios, Greater Sage-Grouse habitat requirements would be addressed. However, in some localized situations a lack of focus on Greater Sage-Grouse specific issues would result in adverse impacts. Alternative B puts specific focus on Greater Sage-Grouse habitat requirements in priority habitat to preclude potential adverse impacts with regard to both the livestock themselves and project infrastructure. Because Alternative C closes sage-grouse priority habitat and sage-grouse general habitat to grazing, adverse issues on public lands would be precluded, but actions taken on private land to compensate for loss of public grazing might affect Greater Sage-Grouse habitat and could be substantial (for example, volumes of fencing would likely be constructed to hold livestock on private lands). Alternatives D and E would apply the specific focus on Greater Sage-Grouse habitat described for Alternative B to sage-grouse priority habitat. For additional detail on impacts from range management on Greater Sage-Grouse, refer to Chapter 4.				
Invasive Species					
Weed control priority areas	Analysis of the impacts from weeds on Greater Sage-Grouse were considered in the impacts to Greater Sage-Grouse section, including, under the impacts from lands and realty on Greater Sage-Grouse, impacts from fluid minerals on Greater Sage-Grouse and impacts from wildfire suppression, fuels management and fire rehabilitation sections. However, weed infestations are considered a localized threat in the Wyoming Basin sub-population and a present and widespread threat in the Jackson Hole sub-population in Wyoming by the Conservation Objectives Team (COT) Report (USFWS 2013).				
Wildfire					
Fire suppression priority areas	Fire suppression priorities without consideration of Greater	In sage-grouse priority habitat, suppression would be prioritized	In sage-grouse priority habitat, suppression would be prioritized	Fire suppression priorities without consideration of	In Addition to Alternative A: In Greater Sage-Grouse habitat

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
	Sage-Grouse habitat requirements.	<p>immediately after firefighter and public safety to conserve the habitat.</p> <p>In sage-grouse general habitat, a high priority would be assigned for suppression where wildfires threaten priority sage-grouse habitat.</p>	<p>immediately after firefighter and public safety to conserve the habitat.</p> <p>In sage-grouse general habitat, a high priority would be assigned for suppression where wildfires threaten priority sage-grouse habitat.</p>	Greater Sage-Grouse habitat requirements.	<p>(priority and general habitat), suppression will be a high priority and commensurate with values at risk.</p> <p>Sage-grouse general habitat would be assigned a priority commensurate with its importance in the local fire plan.</p>
Disease					
<p>Although impacts from West Nile Virus to Greater Sage-Grouse are considered in the analysis, the vast majority of Greater Sage-Grouse habitat in the planning area have not been experiencing West Nile outbreaks, perhaps because these areas have not been experiencing the mean daily temperature reaches of 21 degrees Celsius which turns on the <i>Culex tarsalis</i> development cycle (Naugle et al. 2005). To address future conditions and new locations of West Nile virus outbreaks, see RDFs for a description of features designed to reduce the threat of West Nile Virus (Appendix B, Required Design Features).</p>					
Coal Mining					
Areas identified as unsuitable for coal mining	<p>234,230 acres</p> <p>Various areas found unsuitable for coal mining, but few tied specifically to protection of Greater Sage-Grouse habitat.</p>	<p>5,000,400 acres</p> <p>Under Alternatives B and C, the BLM/Forest Service would find sage-grouse priority habitat unsuitable for surface mining.</p> <p>The BLM would grant no new sub-surface mining leases unless all facilities could be located outside of sage-grouse priority habitat.</p>		<p>234,230 acres</p> <p>In addition to Alternative A:</p> <p>Coal – Surface Mining Methods—</p> <p>Upon receipt of a coal lease application in sage-grouse core areas, 43 CFR 3461.5, Criterion 15 would be applied and the area would be identified as suitable for further coal leasing consideration after consultation with the state and where applicable, surface management agency, to determine that all or certain stipulated methods of coal mining would not have a significant long-term impact on the sage-grouse. Special conditions could be required as identified during the leasing process to protect sage-grouse resources.</p>	
Weather					
<p>There is no resource program in an RMP for addressing this threat to Greater Sage-Grouse and its habitat.</p>					

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
Predation					
See Appendix B (Required Design Features) and Appendix F (Predator Management) for Lands and Realty and Minerals for a description of features designed to reduce the threat of predation.					
Conifers					
Although impacts from conifer encroachment on Greater Sage-Grouse are considered in the analysis, the vast majority of Greater Sage-Grouse habitat in the Wyoming Greater Sage-Grouse 9 Plan is not affected by conifer encroachment. Areas where encroachment is an issue will be encumbered by the vegetation treatment protocols and management actions prescribed in this plan for Greater Sage-Grouse habitats.					
Prescribed Fire					
Areas suitable for prescribed fire use	Treatments considered on a case-by-case basis, and not prioritized specific to Greater Sage-Grouse habitat.	No treatments would be allowed in known winter range in sage-grouse priority habitat, unless treatment is designed to strategically reduce wildfire risk around or in winter range and will maintain winter habitat range quality.	No treatments would be allowed in known winter range in ADH, unless treatment is designed to strategically reduce wildfire risk around or in winter range and will maintain winter habitat range quality.	No similar action	In sage-grouse core habitat, fuels treatments would be designed and implemented with an emphasis on protecting existing sagebrush ecosystems and enhancing and protecting future sagebrush ecosystems (refer to Appendix A and WGF D Protocols for Treating Sagebrush to Benefit sage-grouse).
Water Development					
Identify number, type, and location of range water developments	Although impacts from West Nile Virus to Greater Sage-Grouse are considered in the analysis, the vast majority of Greater Sage-Grouse habitat in Wyoming exists at elevations above where West Nile virus is commonly found (Naugle et al. 2005). Refer to required design features for a description of features designed to reduce the threat of West Nile Virus (Appendix B).				
Recreation					
Outdoor Recreation Management	Recreation permit priorities, those in TBNG tied specifically to protection of Greater Sage-Grouse habitat.	BLM Special Recreation Permits (SRPs) and Forest Service Recreation Special Use Authorizations (RSUAs) would be allowed in priority habitat only if	BLM Special Recreation Permits (SRPs) and Forest Service Recreation Special Use Authorizations (RSUAs) would be	In addition to Alternative A: BLM SRPs and Forest Service Recreation Special Use Authorizations would be allowed in sage-	In addition to Alternative A: BLM Special Recreation Permits (SRPs) and Forest Service Recreation Special Use Authorizations (RSUAs)

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
		they have neutral or beneficial effects to priority habitat areas.	allowed in priority habitat only if they have neutral or beneficial effects to priority habitat areas.	grouse core habitat on a case by case basis consistent with other resource values.	would be allowed in core habitat if negative impacts to sage-grouse can be adequately mitigated.
Hard Rock Mining					
Locatable Minerals	117,370 acres would be proposed for withdrawal from locatable mineral entry. Various areas recommended for withdrawal/currently withdrawn (mostly special designations). May be some overlap with Greater Sage-Grouse habitat.	3,442,120 acres would be proposed for withdrawal from locatable mineral entry. Alternatives B and C would propose a withdrawal from locatable mineral entry in sage-grouse priority habitat ¹ . Existing claims in sage-grouse priority habitat would be subject to validity exams.		117,370 acres would be proposed for withdrawal from locatable mineral entry. Portions of sage-grouse core habitat would be withdrawn from mineral entry for the protection of sensitive resources	3,442,120 acres would be proposed for withdrawal from locatable mineral entry. A withdrawal from mineral entry would be evaluated and considered based on risk to the sage-grouse and its habitat in core habitat areas from conflicting locatable mineral potential and development. Operators could be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact sage-grouse core area habitats.
Salable Minerals/Mineral Materials	274,860 acres would be closed to mineral material sales and permits. Various areas closed to mineral material sales. May be some overlap with Greater Sage-Grouse habitat.	5,000,400 acres would be closed to mineral material sales and permits. Under Alternatives B and C, sage-grouse priority habitat would be closed to mineral material sales.		274,860 acres would be closed to mineral material sales and permits. Sage-grouse core habitat areas would be open to mineral material exploration, sales, and free use	274,860 acres would be closed to mineral material sales and permits. In addition to Alternative A: All salable mineral activities within core habitat areas would be

Resource/Resource Use	Alternative A (No Action Alternative)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred Alternative)
				permits, except in areas that are unavailable due to the need to protect other resource values	considered, provided they can be completed in compliance within surface occupancy, seasonal restrictions, and disturbance and density stipulations analyzed through the DDCT process.
Summary of Impacts to Greater Sage-Grouse from Hard Rock Mining	Alternatives B and C would be more protective to Greater Sage-Grouse and Greater Sage-Grouse habitat than Alternatives A, D and E. Effective mitigation for existing mining claims and mineral material sites is similar across all action alternatives. See Chapter 4 for a complete description of impacts from locatable minerals on Greater Sage-Grouse.				
Hunting					
There is no resource program in an RMP or LRMP for addressing this threat to Greater Sage-Grouse and its habitat.					
Climate Change					
There is no resource program in an RMP or LRMP for addressing this threat to Greater Sage-Grouse and its habitat. However, BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Wyoming include provisions for altering grazing management practices in response to drought conditions. In addition, several programs have contingency plans for management during drought conditions					
Contaminants					
There are no actions in this LUP Amendment for addressing this threat to Greater Sage-Grouse and its habitat. Regulations applied to mineral development and required design features (Appendix B) include requirements and design features to prevent the potential threat of contaminants.					

Table 2-6. Reasonably Foreseeable Development Scenario for Federal Oil and Gas and Coalbed Natural Gas Wells and Associated Surface Disturbance Acres

Analysis Area		Alternative A (BLM/Forest Service Wells)		Alternative B (BLM/Forest Service Wells)		Alternative C (BLM/Forest Service Wells)		Alternative D (BLM/Forest Service Wells)		Alternative E (BLM/Forest Service Wells)	
		O&G	CBNG								
Casper Field Office	Sage-grouse Core/Priority Areas	496	105	76	6	76	6	430	88	284	52
	Disturbance Acres*	4,960		730		730		4,280		2,810	

Analysis Area		Alternative A (BLM/Forest Service Wells)		Alternative B (BLM/Forest Service Wells)		Alternative C (BLM/Forest Service Wells)		Alternative D (BLM/Forest Service Wells)		Alternative E (BLM/Forest Service Wells)	
		O&G	CBNG								
	Sage-grouse General Habitat	563	403	564	409	441	374	562	408	550	406
	Disturbance Acres*	5,340		5,370		4,360		5,350		5,260	
	Total Wells	1,059	508	639	415	517	380	992	496	834	458
	Total Disturbance Acres*	10,300		6,100		5,090		9,640		8,070	
Kemmerer Field Office	Sage-grouse Core/Priority Areas	168	84	50	4	50	4	146	73	98	49
	Disturbance Acres*	1,990		490		490		1,740		1,160	
	Sage-grouse General Habitat	534	200	546	206	454	112	545	206	545	206
	Disturbance Acres*	5,310		5,430		4,210		5,420		5,420	
	Total Wells	702	285	595	210	504	116	691	279	642	255
	Total Disturbance Acres*	7,300		5,920		4,700		7,160		6,580	
Newcastle Field Office	Sage-grouse Core/Priority Areas	67	11	10	0	10	0	57	9	43	4
	Disturbance Acres*	550		80		80		460		340	
	Sage-grouse General Habitat	165	13	167	14	114	0	165	13	165	13
	Disturbance Acres*	1,230		1,250		820		1,230		1,230	
	Sage-grouse Connectivity Habitat	71	0	73	0	42	0	63	0	68	0
	Disturbance Acres*	400		400		240		360		380	
	Total Wells	303	23	250	14	166	0	285	21	276	17
	Total Disturbance Acres*	2,180		1,650		1,060		1,590		1,620	
Pinedale Field	Sage-grouse	447	45	14	2	14	2	160	31	154	18

Analysis Area		Alternative A (BLM/Forest Service Wells)		Alternative B (BLM/Forest Service Wells)		Alternative C (BLM/Forest Service Wells)		Alternative D (BLM/Forest Service Wells)		Alternative E (BLM/Forest Service Wells)	
		O&G	CBNG	O&G	CBNG	O&G	CBNG	O&G	CBNG	O&G	CBNG
Office	Core/Priority Areas										
	Disturbance Acres*	5,610		180		180		2,090		1,950	
	Sage-grouse General Habitat	4,246	328	4,429	341	3,996	240	4,278	333	4,263	333
	Disturbance Acres*	33,870		35,320		31,530		34,130		34,020	
	Total Wells	4,693	373	4,443	343	4,010	242	4,438	364	4,416	351
	Total Disturbance Acres*	39,480		35,500		31,710		36,220		35,960	
Rawlins Field Office	Sage-grouse Core/Priority Areas	405	546	172	153	172	153	352	481	253	357
	Disturbance Acres*	6,120		2,210		2,210		5,360		3,910	
	Sage-grouse General Habitat	1,436	785	1,498	820	857	611	1,472	809	1,472	809
	Disturbance Acres*	15,170		15,830		9,770		15,580		15,580	
	Total Wells	1,841	1,331	1,670	973	1,029	764	1,824	1,291	1,725	1,167
	Total Disturbance Acres*	21,290		18,030		11,970		20,930		19,480	
Rock Springs Field Office	Sage-grouse Core/Priority Areas	2,188	37	1,101	2	1,101	2	1,977	31	1,598	12
	Disturbance Acres*	25,600		12,790		12,790		23,110		16,460	
	Sage-grouse General Habitat	2,573	111	2,601	114	2,149	61	2,586	113	2,585	113
	Disturbance Acres*	20,820		21,060		17,230		20,930		20,920	
	Total Wells	4,761	149	3,702	117	3,250	63	4,564	144	4,183	126
	Total Disturbance Acres*	46,410		33,850		30,020		44,050		37,380	
Bridger-Teton National	Sage-grouse Core/Priority Areas	0	0	0	0	0	0	0	0	0	0

Analysis Area		Alternative A (BLM/Forest Service Wells)		Alternative B (BLM/Forest Service Wells)		Alternative C (BLM/Forest Service Wells)		Alternative D (BLM/Forest Service Wells)		Alternative E (BLM/Forest Service Wells)	
		O&G	CBNG								
Forest	Disturbance Acres*	0		0		0		0		0	
	Sage-grouse General Habitat	158	9	159	10	26	0	158	9	158	9
	Disturbance Acres*	2,010		2,020		320		2,010		2,010	
	Total Wells	158	9	159	10	26	0	158	9	158	9
	Total Disturbance Acres*	2,013		2,019		319		2,014		2,014	
Thunder Basin National Grasslands	Sage-grouse Core/Priority Areas	44	11	2	0	2	0	38	9	26	7
	Disturbance Acres*	410		19		19		360		260	
	Sage-grouse General Habitat	93	70	94	73	30	27	94	72	94	72
	Disturbance Acres*	950		970		260		960		960	
	Total Wells	136	81	96	73	32	27	131	82	120	80
	Total Disturbance Acres*	1,360		990		280		1,320		1,220	
Medicine Bow National Forest	Sage-grouse Core/Priority Areas	0	0	0	0	0	0	0	0	0	0
	Disturbance Acres*	0		0		0		0		0	
	Sage-grouse General Habitat	0	0	0	0	0	0	0	0	0	0
	Disturbance Acres*	0		0		0		0		0	
	Total Wells	0	0								
	Total Disturbance Acres*	0									
Total Wells		13,653	2,758	11,555	2,154	9,533	1,594	13,083	2,686	12,355	2,462
Total Disturbance Acres*		130,330		104,050		85,140		122,910		112,330	

*Acreeages are for short-term surface disturbance acres

2.7 COMPARATIVE SUMMARY OF IMPACTS

Table 2-7 briefly summarizes the impacts of the actions proposed under each alternative, organized by resource or resource management program. A detailed discussion of the environmental consequences of the actions proposed under each alternative is presented in Chapter 4.

Table 2-7. Comparative Summary of Impacts

No Action	Alternative B	Alternative C	Alternative D	Alternative E
Air Quality				
NO _x emissions could increase by 8,172 tons per year in 2020. NO _x emissions could increase by 7,365 tons per year in 2031.	NO _x emissions could increase by 8,318 tons per year in 2020. NO _x emissions could increase by 4,430 tons per year in 2031.	NO _x emissions could increase by 4,696 tons per year in 2020. NO _x emissions could increase by 4,068 tons per year in 2031.	NO _x emissions could increase by 8,340 tons per year in 2020. NO _x emissions could increase by 7,061 tons per year in 2031.	NO _x emissions could increase by 7,667 tons per year in 2020. NO _x emissions could increase by 5,182 tons per year in 2031.
Cultural Resources				
Surface disturbance from oil and gas development, livestock grazing, recreation and travel management could potentially damage undiscovered or undocumented cultural sites. Under this alternative, 871,780 acres would be closed to oil and gas development, potentially decreasing impacts to cultural resources in these areas. Under this alternative, 285,930 acres would be managed as ROW exclusion areas and 437,120 acres would be closed to wind development, potentially decreasing impacts to cultural resources in these areas. Leasing of solid leasable minerals would be closed on 234,230 acres, potentially	As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management could potentially damage undiscovered or undocumented cultural sites. An increase in the number of acres closed to oil and gas development (6,809,580 acres in Alternative B as compared to 871,780 acres in Alternative A) would potentially decrease disturbance, resulting in fewer impacts to cultural sites. Additional restrictions on other surface and sub-surface activities, such as ROW exclusion areas	As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management could potentially damage undiscovered or undocumented cultural sites. An increase in the number of acres closed to oil and gas development (16,878,220 acres in Alternative C as compared to 871,780 acres in Alternative A) would potentially decrease disturbance, resulting in fewer impacts to cultural sites. Additional restrictions on other surface and sub-surface activities, such as ROW exclusion areas (11,531,340 acres) and areas closed to wind development	As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management could potentially damage undiscovered or undocumented cultural sites. An increase in the number of acres closed to oil and gas development (964,860 acres in Alternative D as compared to 871,780 acres in Alternative A) would potentially decrease disturbance, resulting in fewer impacts to cultural sites. Additional restrictions on other surface and sub-surface activities, such as ROW exclusion areas (5,141,340 acres) and areas closed to wind development	As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management could potentially damage undiscovered or undocumented cultural sites. The number of acres closed to oil and gas development, 892,090 acres, would close more land to oil and gas development as compared to Alternative A. Additional restrictions on areas closed to wind development (5,002,520) would decrease the impacts to cultural resources when compared with Alternative A. Impacts from ROW exclusion areas would be the same as those in Alternative A. Impacts from solid leasable

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>decreasing impacts to cultural resources in these areas.</p>	<p>(5,141,340 acres) and areas closed to wind development (5,000,400 acres) would decrease the impacts to cultural resources when compared with Alternative A. An increase in the number of acres closed to solid leasable mineral development (5,000,400 acres as opposed to 234,230 acres under Alternative A) would protect cultural resources within these additional areas.</p>	<p>(11,531,340 acres) would decrease the impacts to cultural resources when compared with Alternative A. An increase in the number of acres closed to solid leasable mineral development (5,000,400 acres as opposed to 234,230 acres) would protect cultural resources within these additional areas.</p>	<p>(5,000,400 acres) would decrease the impacts to cultural resources when compared with Alternative A. Solid mineral leasing would be prohibited on 234,230 acres (Map 2-27), which is the same as Alternative A. Thus, impacts from solid mineral leasing would be similar to those described in Alternative A.</p>	<p>minerals would be the same as those described in Alternative A, with the same amount of acres being closed (Map 2-28).</p>
Forestry				
<p>Impacts to forestry and forestry resources would mostly occur from surface disturbing activities. Surface disturbing activities could reduce forest/woodland health through vegetation removal, soil compaction, soil removal, fractured vegetation communities, modified plant community structure and diversity, increased soil erosion, and increased surface runoff. This reduction in forest/woodland health could lead to an increase in invasive/noxious species establishment/proliferation and a reduction in timber production. The majority of surface disturbing activities within the planning area would be from minerals development and</p>	<p>Impacts to forestry from surface disturbing activities could be reduced compared to Alternative A, as short-term surface disturbances from fluid minerals development would be reduced to 104,050 acres and long-term surface disturbance acres to 33,540 acres. Surface disturbing impacts from oil, gas, and CBNG wells could be reduced compared to Alternative A, as the number of wells would be reduced to 11,555 oil and gas wells and 2,154 CBNG wells. These reductions could reduce the total acres developed for fluid minerals within forest/woodland habitat thus decreasing forestry/woodland vegetation, timber, and</p>	<p>Impacts to forestry from surface disturbing activities could be reduced compared to Alternative A, as short-term surface disturbances from fluid minerals development would be reduced to 85,140 acres and long-term surface disturbances would be reduced to 27,030 acres. These disturbances would be reduced compared to Alternative A, as fluid mineral well development would be reduced to 9,533 oil and gas wells and 1,594 CBNG wells. The reduction in fluid mineral wells could reduce the total acres in forest/woodland habitat developed for fluid mineral activities which would maintain habitat functions and health as well as maintain timber production in</p>	<p>Impacts to forestry from surface disturbing activities would be the same as Alternative A, except the level of intensity would be reduced as the total short-term surface disturbance acres from fluid minerals development would be reduced to 122,910 acres and 37,720 long-term surface disturbance areas. This reduction in surface disturbance acres would help maintain ecological processes important to forest/woodland health and timber production. The reduction in impacts to forestry resources would mostly be due to the reduction of fluid mineral wells, with oil and gas wells being reduced to 13,083 wells and CBNG reduced to</p>	<p>Impacts from fluid mineral activities would be the same as Alternative A, except the level of intensity would be different as the projected well development would be reduced to 12,355 oil and gas wells and 2,462 CBNG wells. This reduction in wells would help maintain forest/woodland ecological functions and maintain timber production. Compared to Alternative A, surface disturbing activities from fluid minerals development would be reduced which would reduce short-term surface disturbance to 112,330 acres and long-term surface disturbances to 35,430 acres.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>associated infrastructure, both of which typically are situated in non-forested to lightly forested areas.</p> <p>Minerals development and surface disturbing activities that do occur in woodland/forest areas are more likely to occur in areas that have high potential for coalbed natural gas (CBNG). Surface disturbing impacts to forestry resources from fluid minerals development are expected to occur across 130,330 acres in the short-term and 39,050 acres in the long-term under Alternative A, most of which would be outside timber production and harvest areas.</p>	<p>associated ecological processes which are important to overall forest health.</p>	<p>these areas.</p>	<p>2,686 wells. Reduction in wells could also reduce associated surface disturbances such as the construction of roads and utilities which could reduce forest/woodland vegetation removal compared to Alternative A.</p>	
Lands and Realty				
<p>Impacts on lands and realty management would result from placing restrictions on the location of ROWs and land tenure adjustments. Prohibiting or restricting surface disturbing activities and managing lands as ROW exclusion and avoidance areas could result in the relocation or redesign of proposed ROWs or could preclude the development of some ROWs that could not be effectively mitigated or located in other areas. Land use restrictions that result in the relocation or redesign of proposed ROWs would increase management efforts</p>	<p>Impacts on lands and realty management would be similar to those identified under Alternative A, except the impacts would be more extensive with an increase in ROW exclusion and avoidance areas. ROW exclusion and avoidance areas would include 5,141,340 and 6,390,010 acres, respectively.</p>	<p>Impacts on lands and realty management would be similar to those identified under Alternative A, except the impacts would be more extensive with an increase in ROW exclusion areas. ROW exclusion and avoidance areas would include 11,531,340 and 0 acres, respectively.</p>	<p>Impacts on lands and realty management would be similar to those identified under Alternative A, except the impacts would be more extensive with an increase in ROW exclusion areas. ROW exclusion and avoidance areas would include 5,141,340 and 1,211,030 acres, respectively.</p>	<p>Impacts on lands and realty management would be similar to those identified under Alternative A, except the impacts would be more extensive with an increase in ROW avoidance areas and areas in which surface disturbing activities are prohibited. ROW exclusion and avoidance areas would include 285,930 and 6,065,960 acres, respectively.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>and costs related to proposals submitted by ROW applicants. ROW exclusion and avoidance areas would include 285,930 and 2,460,340 acres, respectively.</p>				
Livestock Grazing				
<p>Impacts to livestock grazing would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>The impacts would be greatest under this alternative because of fewer restrictions on newly permitted surface disturbing activities within the planning area.</p> <p>Managing 285,930 acres as ROW exclusion areas, 871,780 acres as unavailable for oil and gas leasing, 40,980 acres as NSO areas, and 68,550 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to maintain forage resources, but to a lesser extent than the other alternatives.</p> <p>Grazing management would be adjusted on all allotments not meeting the Wyoming Standards for Healthy Rangelands on BLM-administered lands, and to those not meeting LRMP standards and guidelines on Forest Service-administered</p>	<p>Impacts to livestock grazing would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 5,141,340 acres as ROW exclusion areas, 6,809,580 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas would reduce surface disturbances and help to maintain forage resources.</p> <p>Allotments within sage-grouse priority habitat not meeting the Wyoming Standards for Healthy Rangelands due, in part, to livestock grazing would require a 20-30% forage allocation for livestock, thereby decreasing the forage available for grazing. In addition, retiring specific allotments and/or permits could occur and reduce the number of acres available for livestock grazing.</p>	<p>Impacts to livestock grazing would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 11,531,340 acres as ROW exclusion areas, 16,878,220 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas, would reduce surface disturbances and help to maintain forage resources. Because such restrictions are the most extensive under this alternative, impacts to livestock grazing associated with surface disturbances would be the least intensive.</p> <p>Livestock grazing would be entirely prohibited within sage-grouse priority habitat (approximately 5 million acres), thereby significantly reducing the number of acres available for livestock grazing.</p>	<p>Impacts to livestock grazing would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 5,141,340 acres as ROW exclusion areas and 964,860 acres as unavailable for oil and gas leasing would reduce surface disturbances and help to maintain forage resources.</p> <p>Grazing management would be adjusted on all allotments not meeting the Wyoming Standards for Healthy Rangelands on BLM-administered lands, and to those not meeting LRMP standards and guidelines on Forest Service-administered lands, for reasons attributable to grazing. These management restrictions could reduce AUM utilization and increase the cost of livestock operations.</p>	<p>Impacts to livestock grazing would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 285,930 acres as ROW exclusion areas, 892,090 acres as unavailable for oil and gas leasing, 689,300 acres as NSO areas, and 304,970 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to maintain forage resources.</p> <p>Grazing management would be adjusted on all allotments not meeting the Wyoming Standards for Healthy Rangelands on BLM-administered lands, and to those not meeting LRMP standards and guidelines on Forest Service-administered lands, for reasons attributable to grazing. These management restrictions could reduce AUM utilization and increase the cost of livestock operations.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>lands, for reasons attributable to grazing. These management restrictions could reduce AUM utilization and increase the cost of livestock operations.</p>				
Minerals and Energy				
Fluid Leasable Minerals				
<p>Closing 871,780 acres, NSO on 40,980 acres and CSU on 5,015,210 acres within sage-grouse core and general habitat (Map 2-4) to fluid mineral development would restrict the area in which development could occur, would increase the complexity of mineral operations, slow down the production of fluid minerals, and ultimately reduce the number of mineral operations.</p> <p>Timing and distance limitations within sage-grouse core and general habitat would further shorten the season for mineral development and delay access to mineral resources.</p> <p>Under Alternative A, there would be 13,653 wells projected over the life of the plan.</p>	<p>Closing 6,809,580 acres within sage-grouse priority habitat to fluid mineral development and applying NSO stipulations, as COAs, to valid existing leases on 2,082,140 acres (Map 2-5) would decrease the number of mineral operations compared to Alternative A.</p> <p>Timing and distance limitations would be increased to include a 4-mile NSO buffer around leks with a cap on surface disturbance of 1 disturbance per section and no more than 3% total surface disturbance, which would further reduce and limit mineral activity compared to Alternative A.</p> <p>Under Alternative B, the impacts above would reduce the number of wells projected over the life of the plan to 11,555.</p>	<p>Closing all 16,878,220 acres of sage-grouse priority and general habitat to fluid mineral development and applying NSO stipulations, as COAs, to valid existing leases on 2,082,140 acres (Map 2-6) would decrease the number of mineral operations compared to Alternative A.</p> <p>Timing and distance limitations would be similar to Alternative B, but would include disruptive activities as well, which would further reduce and limit mineral activity compared to Alternative A.</p> <p>Under Alternative C, the impacts above would reduce the number of wells projected over the life of the plan to 9,533.</p>	<p>Closing 964,860 acres within sage-grouse core and general habitat to fluid mineral development and CSU on 2,117,990 acres within sage-grouse core and general habitat (Map 2-7) would decrease the number of mineral operations compared to Alternative A.</p> <p>Timing and density limitations of 3 locations per 640 acres and a 9% disturbance cap would reduce and limit mineral development compared to Alternative A.</p> <p>Under Alternative D, the impacts above would reduce the number of wells projected over the life of the plan to 13,083.</p>	<p>Closing 892,090 acres, NSO on 689,300 acres and CSU on 6,146,570 acres within sage-grouse core and general habitat (Map 2-8) to fluid mineral development would decrease the number of mineral operations compared to Alternative A.</p> <p>Timing and distance limitations would be increased to include prohibiting surface occupancy and disruptive activities within 0.6 miles of occupied leks and density limitations of 1 location per 640 acres and a 5% disturbance cap would reduce and limit mineral activity compared to Alternative A.</p> <p>Under Alternative E, the impacts above would reduce the number of wells projected over the life of the plan to 12,355.</p>
Solid Leasable Minerals				
<p>Consideration of solid mineral leasing in most of the planning area would allow for the</p>	<p>Closing sage-grouse priority areas to coal exploration would decrease the area available for future</p>	<p>Impacts would be the same as under Alternative B (Map 2-26).</p>	<p>Impacts would be the same as under Alternative A (Map 2-27).</p>	<p>Impacts would be the same as under Alternative A (Map 2-28).</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>development of coal.</p> <p>Consideration of non-energy leasable minerals would allow for the development of sodium (trona), phosphates, and tar sands.</p> <p>Approximately 234,230 acres would be closed to solid mineral leasing, which would eliminate this type of mineral development over 3% of sage-grouse core and general habitat (Map 2-24).</p>	<p>development of coal compared to Alternative A.</p> <p>Closing sage-grouse priority areas to non-energy leasable minerals would reduce the amount of area available for mineral development.</p> <p>Approximately 5,000,400 acres would be closed to solid mineral leasing, which would eliminate this type of mineral development over 43% of sage-grouse priority and general habitat (Map 2-25).</p>			
Locatable Minerals				
<p>Withdrawing or pursuing withdrawal on approximately 117,370 acres from mineral entry would restrict the ability to develop locatable minerals in those areas (Map 2-19).</p>	<p>Withdrawing or pursuing withdrawal on all priority sage-grouse habitat (approximately 3,442,120 acres) from mineral entry would restrict the ability to develop locatable minerals on more areas than Alternative A (Map 2-20).</p>	<p>Impacts would be the same as under Alternative B (Map 2-21).</p>	<p>Impacts would be the same as under Alternative A (Map 2-22).</p>	<p>Impacts would be the same as under Alternative B (Map 2-23).</p>
Saleable Minerals				
<p>Saleable mineral development, including mineral material exploration, sales, and free use permits (Map 2-14) would be closed on 274,860 acres (about 8% of sage-grouse core and general habitat).</p>	<p>Saleable mineral development, including mineral material exploration, sales, and free use permits (Map 2-15) would be closed on 5,000,400 acres (all sage-grouse priority habitat), constituting about 43% of sage-grouse priority and general habitat, nearly 5 times the closures as Alternative A.</p>	<p>Impacts would be the same as under Alternative B (Map 2-16).</p>	<p>Saleable mineral development, including mineral material exploration, sales, and free use permits (Map 2-17) would be closed on 274,860 acres.</p>	<p>Impacts would be the same as under Alternative D (Map 2-18).</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
Wind Energy				
<p>Wind energy development would be allowed in most places across the planning area without specific restrictions (Map 2-29). 437,120 acres would be closed to wind development and 3,888,930 acres would have restrictions. A total of 27,970 wind turbines (2 MW) are projected to be developed through 2020.</p>	<p>Closing sage-grouse priority habitat to wind energy (5,000,400 acres) and limiting wind energy in general habitat areas (6,530,940 acres) would reduce projected development to 2,821 turbines (Map 2-30) compared to Alternative A.</p>	<p>Closing sage-grouse priority and general habitat to wind energy development (11,531,340 acres) would reduce projected development to 2,821 turbines, the same as under Alternative B, but limiting areas where they could be built more than Alternative B (Map 2-31).</p>	<p>Closing sage-grouse core habitat to wind energy (5,000,400 acres) and limiting wind energy in general habitat areas (501,830 acres) would reduce projected development to 21,863 turbines (Map 2-32) compared to Alternative A.</p>	<p>Closing sage-grouse core habitat to wind energy (5,002,520 acres) and limiting wind energy in general habitat areas (6,528,810 acres) would reduce projected development to 2,821 turbines (Map 2-33), the same number as Alternative B, but with slightly more closed areas and fewer limited areas.</p>
Paleontology				
<p>Surface disturbance from oil and gas development, livestock grazing, recreation and travel management would cause potential damage to undiscovered or undocumented paleontological resources. Surface disturbing activities would be prohibited on 68,550 acres and restricted on 437,680 acres, which could protect paleontological resources within these areas. Under this alternative, 871,780 acres would be closed to oil and gas development, potentially decreasing impacts to paleontological resources in these areas. Leasing of solid leasable minerals would be closed on 234,230 acres, potentially decreasing impacts to paleontological resources in these areas.</p>	<p>As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management would cause potential damage to undiscovered or undocumented paleontological resources. Closing 6,809,580 acres to oil and gas development would greatly expand the protection of paleontological resources within these areas as compared to 871,780 acres that would be closed to oil and gas development in Alternative A. Leasing of solid leasable minerals would be closed on 5,000,400 acres, greatly expanding the area protected from mineral development.</p>	<p>As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management would cause potential damage to undiscovered or undocumented paleontological resources. A significant increase in the number of acres closed to oil and gas development (16,878,220 acres) could potentially decrease disturbance, resulting in fewer impacts to paleontological resources as compared to Alternative A. Leasing of solid leasable minerals would be closed on 5,000,400 acres, greatly expanding the area protected from mineral development. Additional restrictions on other surface and sub-</p>	<p>As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management would cause potential damage to undiscovered or undocumented paleontological resources. Impacts from oil and gas development would be similar to those in Alternative A with respect to the amount of acres closed to oil and gas development. However, the number of acres closed to oil and gas development would be slightly increased (964,860 acres in Alternative D, as opposed to 871,780 acres in Alternative A). Solid mineral leasing would be closed on 234,230 acres (Map 2-27), which is the same as Alternative A.</p>	<p>As with Alternative A, surface disturbance from oil and gas development, livestock grazing, recreation and travel management would cause potential damage to undiscovered or undocumented paleontological resources. However, the number of acres on which surface disturbance is prohibited would increase (68,550 acres in Alternative A as opposed to 304,970 acres in Alternative E). The number of acres where surface disturbance is restricted would decrease when compared to Alternative A (437,680 acres in A, as opposed to 21,950 acres in E). Closing 892,090 acres to oil and gas development would expand the protection of</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>Under this alternative, 285,930 acres would be managed as ROW exclusion areas and 437,120 acres would be closed to wind development, potentially decreasing impacts to paleontological resources in these areas.</p>	<p>Additional restrictions on surface and sub-surface disturbing activities, such as ROW exclusion areas (5,141,340 acres) and areas closed to wind development (5,000,400 acres) are all greatly expanded as compared with Alternative A.</p>	<p>surface activities, such as ROW exclusion areas (11,531,340 acres) and areas closed to wind energy (11,531,340 acres) would decrease the impacts to paleontological resources as compared with Alternative A.</p>	<p>Impacts from solid mineral leasing would be similar to those described in Alternative A. Additional restrictions on other surface and sub-surface activities, such as ROW exclusion areas (5,141,340 acres) and areas closed to wind energy (5,000,400) would decrease the impacts to paleontological resources as compared with Alternative A.</p>	<p>paleontological resources within these areas as compared to 871,780 acres that would be closed to oil and gas development in Alternative A. Acres for other surface and sub-surface disturbing activities, such as areas closed to wind energy (5,002,520 acres) are greatly expanded when compared with Alternative A, potentially protecting paleontological resources in these areas. Impacts from ROW exclusion areas (285,930 acres) would be the same as Alternative A. Impacts from solid leasable minerals to paleontological resources would be the same as those described in Alternative A, with the same amount of acres being closed to solid leasable mineral development (Map 2-28).</p>
Recreation Resources				
<p>Allowing recreation use either through permits or casual use will continue in most areas. Popular recreation activities in the planning area include OHV use, hunting, camping, hiking, and scenic touring, among others.</p>	<p>Measures for the protection of sage-grouse in priority and general habitat could reduce some permit-based recreation opportunities compared to Alternative A. Conversely, opportunities for primitive and unconfined recreation could be enhanced indirectly through actions that reduce or remove surface disturbing and disruptive activities. This would occur primarily</p>	<p>Impacts to permitted recreation opportunities would be similar to Alternative B, but expanded to include all non-motorized recreation, seasonally, within 4 miles of active leks. Impacts to other types of recreation would be the same as under Alternative B, except that impacts would be extended to include sage-grouse general habitat, where there would be</p>	<p>Impacts to permitted recreation opportunities would be similar to Alternative A, although more large-group permitted activities could be denied.</p>	<p>Impacts would be roughly the same as under Alternative D.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
	in sage-grouse priority habitat.	additional removal of surface disturbing and disruptive activities.		
Socioeconomics				
<p>Continued management within the planning area would be expected to perpetuate trends that are already occurring within the economic study area. The quantified economic impacts across the entire planning area from 2013–2020 (present value) in 2011 dollars were estimated at \$63.9 billion (B) of total economic output, \$15.6B of total labor earnings, and \$4.1B of local and state revenues. Approximately 37,700 jobs would be supported in 2020. Social impacts from continuation of current trends would occur in this alternative. These impacts would include stresses on community resources and community cohesion caused by high rates of resource development in some areas. In addition, wildlife/ecosystem conservation stakeholders would find this alternative highly unsatisfactory; mineral development, renewable energy development, and livestock grazing stakeholders would generally find this alternative to be most conducive to their interests and values; and recreation stakeholders would have mixed views.</p>	<p>Quantified economic impacts across the entire planning area from 2013–2020 (present value) in 2011 dollars were estimated at \$59.1B of total economic output, \$13.9B of total labor earnings, and \$3.9B of local and state revenues. Approximately 33,600 jobs would be supported in 2020. A number of actions may increase costs to operators or reduce use levels relative to Alternative A in ways that could not be quantified, and thereby affect (increase or decrease in various instances) economic activity in ways that could not be estimated. Social impacts from stresses on community resources and community cohesion caused by high rates of resource development would be reduced relative to Alternative A. In addition, wildlife/ecosystem conservation stakeholders would find this alternative more favorable than Alternative A; mineral development, renewable energy development, and livestock grazing stakeholders could find this</p>	<p>Quantified economic impacts across the entire planning area from 2013–2020 (present value) in 2011 dollars were estimated at \$49.9B of total economic output, \$11.7B of total labor earnings, and \$3.3B of local and state revenues. Approximately 27,900 jobs would be supported in 2020. Additional impacts relative to Alternative A, from actions that could not be quantified, would occur and would be most pronounced in this alternative. Social impacts from stresses on community resources and community cohesion caused by high rates of resource development would be most reduced by this alternative relative to Alternative A. In addition, wildlife / ecosystem conservation stakeholders would find this alternative most favorable of all the alternatives; mineral development and livestock grazing stakeholders would find this alternative least favorable; and renewable energy and recreation stakeholders could view this alternative very similarly to Alternative B.</p>	<p>Quantified economic impacts across the entire planning area from 2013–2020 (present value) in 2011 dollars were estimated at \$62B of total economic output, \$15.1B of total labor earnings, and \$4.0B of local and state revenues. Approximately 35,400 jobs would be supported in 2020. Additional impacts relative to Alternative A, from actions that could not be quantified, would occur and would be less pronounced in this alternative than Alternatives B and C. Social impacts from stresses on community resources and community cohesion caused by high rates of resource development would be similar to Alternative A. In addition, wildlife / ecosystem conservation stakeholders would find this alternative unsatisfactory; mineral development stakeholders would find it favorable; renewable energy stakeholders would find it less favorable than Alternative A but more favorable than the other alternatives; and livestock grazing stakeholders and recreation stakeholders</p>	<p>Quantified economic impacts across the entire planning area from 2013–2020 (present value) in 2011 dollars were estimated at \$60.1B of total economic output, \$14.3B of total labor earnings, and \$3.9B of local and state revenues. Approximately 34,600 jobs would be supported in 2020. Additional impacts relative to Alternative A, from actions that could not be quantified, would occur and would be less pronounced in this alternative than Alternatives B and C. Social impacts from stresses on community resources and community cohesion caused by high rates of resource development may be somewhat reduced relative to Alternative A. In addition, wildlife/ecosystem conservation stakeholders would find this alternative more favorable than Alternative A or D, but less favorable than Alternative B or C; mineral development stakeholders could find it less favorable than Alternatives A and D, and more favorable than Alternatives B and C; renewable energy stakeholders would view it</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
	<p>alternative to be less favorable; and recreation stakeholders could have mixed views.</p>		<p>generally would view it similarly to Alternative A.</p>	<p>similarly to Alternative B; livestock grazing stakeholders would view it somewhat similarly to Alternatives A and D and find it more favorable than Alternatives B and C; and recreation stakeholders could have mixed views.</p>
Soils				
<p>Soil resources would be impacted by actions that remove vegetation and expose the surface to accelerated wind and water erosion. The impacts would be greatest under this alternative because of fewer restrictions on newly permitted surface disturbing activities within the planning area.</p> <p>Managing 285,930 acres as ROW exclusion areas, 871,780 acres as unavailable for oil and gas leasing, 40,980 acres as NSO areas, and 68,550 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to reduce soil erosion and maintain soil resources.</p>	<p>Soil resources would be impacted by actions that remove vegetation and expose the surface to accelerated wind and water erosion.</p> <p>Managing 5,141,340 acres as ROW exclusion areas, 6,809,580 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas would reduce surface disturbances and help to reduce soil erosion and maintain soil resources.</p>	<p>Soil resources would be impacted by actions that remove vegetation and expose the surface to accelerated wind and water erosion.</p> <p>Managing 11,531,340 acres as ROW exclusion areas, 16,878,220 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas would reduce surface disturbances and help to reduce soil erosion and maintain soil resources. Because such restrictions are the most extensive under this alternative, impacts to soil resources would be the least intensive.</p>	<p>Soil resources would be impacted by actions that remove vegetation and expose the surface to accelerated wind and water erosion.</p> <p>Managing 5,141,340 acres as ROW exclusion areas and 964,860 acres as unavailable for oil and gas leasing would reduce surface disturbances and help to reduce soil erosion and maintain soil resources.</p>	<p>Soil resources would be impacted by actions that remove vegetation and expose the surface to accelerated wind and water erosion.</p> <p>Managing 285,930 acres as ROW exclusion areas, 892,090 acres as unavailable for oil and gas leasing, 689,300 acres as NSO areas, and 304,970 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to reduce soil erosion and maintain soil resources.</p>
Special Designations and Management Areas				
<p>SD/MAs would be managed to protect the individual values for which they are designated. Restrictions on surface disturbance would indirectly affect SD/MAs by further protecting values such as</p>	<p>Designating all sage-grouse priority habitat areas as a sage-grouse conservation ACEC would greatly increase the area for which special values would be established and protected</p>	<p>Designating all sage-grouse priority habitat areas and Audubon Important Bird Areas as a sage-grouse conservation ACEC would greatly increase the area for which special values would</p>	<p>Impacts would be similar to Alternative A, except more area would be protected from surface disturbance.</p>	<p>Impacts would be the same as under Alternative D.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
wilderness, special status species, cultural resources, recreation opportunities, etc.	compared to Alternative A. Adding 5,000,402 acres as SD/MAs would be a significant increase over Alternative A (Map 2-34).	be established and protected compared to Alternative A. Adding 6,398,221 acres as SD/MAs would be a significant increase over Alternative A (Map 2-35).		
Special Status Species and Sage-grouse				
<p>Impacts to special status species habitat would result from surface disturbing activities, primarily renewable and non-renewable energy development and associated infrastructure (pipelines, power lines, and roads). Estimated initial surface disturbance from oil, gas, and CBNG is 130,330 acres. Additional surface disturbing activities from wind energy, pipelines, power lines, roads, and mineral development could impact special status species habitat through loss, alteration, and fragmentation of habitats and displacement of wildlife.</p> <p>Continued livestock grazing practices could reach Wyoming Standards for Rangeland Health or the Forest Service equivalent.</p> <p>Lek buffers and other existing restrictions would protect lands, especially sagebrush habitat, from surface disturbing activities, habitat loss, and fragmentation.</p> <p>Greater Sage-Grouse:</p> <p>In addition to the impacts described above, the current management could continue in</p>	<p>Under Alternative B, impacts from surface disturbing activities are lower than all alternatives except for Alternative C. Management would close Greater Sage-Grouse priority habitat to oil, gas, and CBNG leasing, wind energy, as well as other minerals. Estimated initial surface disturbance from oil, gas, and CBNG is 104,050 acres.</p> <p>Additional management for livestock grazing could allow for greater achievement of Wyoming Standards for Rangeland Health or the Forest Service equivalent, and provide improved habitat for special status species, especially those that inhabit riparian and wetland areas.</p> <p>Larger lek buffers and restrictions to the density of disturbance for surface disturbing activities to protect sage-grouse priority habitat would protect more land, especially sagebrush habitat, from surface disturbing activities, habitat</p>	<p>Impacts from surface disturbing activities are the lowest under Alternative C. Management would close Greater Sage-Grouse priority and general habitat to oil, gas, CBNG leasing, and wind energy; and would close priority habitat to other minerals. Estimated initial surface disturbance from oil, gas, and CBNG is 85,140 acres.</p> <p>Closing priority habitat to livestock grazing could allow for improved habitat and ample forage for wildlife, improved water quality for fisheries, and protection of special status plants from trampling, overgrazing, and soil loss.</p> <p>Larger lek buffers and restrictions to the density of disturbance for surface disturbing activities to protect sage-grouse habitat would protect more land, especially sagebrush habitat, from surface disturbing activities, habitat loss, and fragmentation.</p> <p>Overall, Alternative C would provide the greatest</p>	<p>Alternative D could have impacts from surface disturbing activities that are similar to Alternative A. In some cases, such as ROWs and wind energy, Alternative D protects all core sage-grouse habitat. Estimated initial surface disturbance from oil, gas, and CBNG is 122,910 acres.</p> <p>Impacts from surface disturbing activities such as livestock grazing and other mineral development could lead to loss, alteration, and fragmentation of habitat and displacement of special status wildlife.</p> <p>Lek buffers, similar to Alternative A and other restrictions would protect lands, especially sagebrush habitat, from surface disturbing activities, habitat loss, and fragmentation.</p> <p>Greater Sage-Grouse:</p> <p>In addition to the impacts described above, the proposed lek buffers are insufficient to provide Greater Sage-Grouse undisturbed habitat and prevent habitat fragmentation, although</p>	<p>Overall, impacts to special status species habitat from Alternative E would be similar to Alternative A although there would be greater protection to sage-grouse core habitat. Estimated initial surface disturbance from oil, gas, and CBNG is 112,330 acres. All core Greater Sage-Grouse habitat would be closed to wind development, protecting more habitat than Alternative A from loss, alteration, and fragmentation of habitat and displacement of special status wildlife.</p> <p>Management for livestock grazing could allow for achievement of Wyoming Standards for Rangeland Health or the Forest Service equivalent, and provide improved habitat for special status species, especially those that inhabit riparian and wetland areas.</p> <p>Lek buffers larger than Alternative A and other restrictions would protect lands, especially sagebrush habitat, from surface disturbing activities, habitat loss, and fragmentation.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>habitat loss, habitat fragmentation, and human disturbance and declines of sage-grouse are likely to progress.</p>	<p>loss, and fragmentation. Greater Sage-Grouse: Alternative B would reduce surface disturbance and disruptive activities in priority sage-grouse habitat. The protection of priority sagebrush habitat could provide Greater Sage-Grouse the undisturbed, contiguous habitat necessary for the species to maintain or improve population numbers.</p>	<p>protection of sagebrush habitat among all the alternatives. Greater Sage-Grouse: Alternative C would reduce surface disturbance and disruptive activities in priority sage-grouse habitat, and in some cases general habitat (oil, gas, CBNG, ROWs, wind). The protection of priority and general sagebrush habitat could provide Greater Sage-Grouse the largest area of undisturbed, contiguous habitat necessary for the species to maintain or improve population numbers.</p>	<p>restrictions on density of disturbance could allow for some protection of contiguous habitat. Other management could provide protection of sage-grouse core habitat from wind development, by reducing habitat loss, fragmentation, and direct impacts from wind turbines and overhead structures.</p>	<p>Greater Sage-Grouse: In addition to the impacts described above, the proposed lek buffers are sufficient to provide Greater Sage-Grouse undisturbed habitat and prevent habitat fragmentation. Other management could provide protection of sage-grouse core habitat from wind development, by reducing habitat loss, fragmentation, and direct impacts from wind turbines and overhead structures.</p>
Transportation and Access Management				
<p>Under this alternative, areas where surface disturbing activities are prohibited (including buffer areas around sage-grouse leks, nesting areas, and other sensitive areas) would limit travel and access to designated roads and trails in these areas (Map 2-1). Surface disturbing activities under this alternative are prohibited on 68,550 acres and restricted on 437,680 acres. The development of roads and transportation systems required for oil, gas and mineral development would increase travel and access in those areas. In addition, areas closed to oil and gas</p>	<p>The development of roads and transportation systems required for oil, gas, and mineral development would increase travel and access in those areas. Areas closed to oil and gas development (6,809,580 acres), mineral materials (5,000,400 acres), locatable minerals (1,560,050 acres), and solid leasable minerals (5,000,400 acres), could limit or restrict travel and access in those areas. Travel in these areas would be limited to existing roads and trails. Compared with Alternative A, the number of acres closed to minerals activities is much larger,</p>	<p>The development of roads and transportation systems required for oil, gas and mineral development would increase travel and access in those areas. Areas closed to oil and gas development (16,878,220 acres), mineral materials (5,000,400 acres), locatable minerals (1,560,050 acres) and solid leasable minerals (5,000,400 acres), could limit or restrict travel and access in those areas. Travel in these areas would be limited to existing roads and trails. Compared with Alternative A, areas closed to minerals activities are much larger, expanding the area of impact. Mineral</p>	<p>As with Alternative A, areas where surface disturbing activities are prohibited (including buffer areas around sage-grouse leks, nesting areas, and other sensitive areas) would limit travel and access to designated roads and trails in these areas. Surface disturbing activities under this alternative are restricted on 75,870 acres. The development of roads and transportation systems required for oil, gas, and mineral development would increase travel and access in those areas. Areas closed to oil and gas development (964,860 acres), mineral</p>	<p>As with Alternative A, areas where surface disturbing activities are prohibited (including buffer areas around sage-grouse leks, nesting areas, and other sensitive areas) would limit travel and access to designated roads and trails in these areas. Surface disturbing activities under this alternative are prohibited on 304,970 acres and restricted on 21,950 acres. The development of roads and transportation systems required for oil, gas, and mineral development would increase travel and access in those areas. Areas closed to oil and gas development</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>development (871,780 acres), mineral materials (274,860 acres), locatable minerals (1,560,050 acres) and solid leasable minerals (234,230 acres), could limit or restrict travel and access in those areas. Travel in these areas would be limited to existing roads and trails. Mineral development could potentially affect the location of subsequent transportation systems in those areas where development of minerals occurs. Areas open to OHV use would provide motorized access to much of the decision area.</p> <p>Acres for other surface and sub-surface disturbing activities, such as ROW exclusion areas (285,930 acres) and areas closed to wind energy (437,120 acres) could also limit or preclude transportation development in these areas.</p>	<p>expanding the area where impacts could occur. Mineral development could potentially affect the location of subsequent transportation systems where minerals are developed.</p> <p>Roads, primitive roads, and trails in priority habitat not designated in travel management plans would be restored, removing them from travel and access uses under this alternative.</p> <p>Acres for other surface and sub-surface disturbing activities, such as ROW exclusion areas (5,141,340 acres) and areas closed to wind energy (5,000,400) are all greatly expanded when compared with Alternative A, potentially limiting or precluding transportation development in these areas.</p>	<p>development could potentially affect the location of subsequent transportation systems in those areas where minerals are developed.</p> <p>Prohibiting new road construction within four miles of active sage-grouse leks and avoiding new road construction in sage-grouse priority and general habitat would restrict travel and access in these areas.</p> <p>Acres for other surface and sub-surface disturbing activities, such as ROW exclusion areas (11,531,340 acres), areas closed to wind energy (11,531,340 acres) are all greatly expanded when compared with Alternative A, potentially limiting or precluding transportation development in these areas.</p>	<p>materials (274,860 acres), locatable minerals (1,560,050 acres) and solid leasable minerals (234,230 acres), could limit or restrict travel and access in those areas. Travel in these areas would be limited to existing roads and trails. Compared with Alternative A, acres closed to minerals activities are very similar.</p> <p>Prohibiting new road construction within 0.25 mile of active sage-grouse leks, and avoiding new road construction in sage-grouse core and general habitat would restrict travel and access in these areas.</p> <p>Acres for other surface and sub-surface disturbing activities, such as ROW exclusion areas (5,141,340 acres) and areas closed to wind energy (5,000,400) would be expanded when compared with Alternative A, potentially limiting or precluding transportation development in these areas.</p>	<p>(892,090 acres), mineral materials (274,860 acres), locatable minerals (1,560,050 acres) and solid leasable minerals (234,230 acres), could limit or restrict travel and access in those areas. Travel in these areas would be limited to existing roads and trails. Compared with Alternative A, acres closed to minerals activities are very similar.</p> <p>Prohibiting primary and secondary roads within 1.9 miles of active sage-grouse leks, and avoiding new road construction in sage-grouse core and general habitat would restrict travel and access in these areas.</p> <p>Acres for other surface and sub-surface disturbing activities, such as ROW exclusion areas (285,930 acres) and areas closed to wind energy (5,002,520 acres) would be expanded when compared with Alternative A, potentially limiting or precluding transportation development in these areas.</p>
Vegetation				
<p>Vegetation and vegetation communities would primarily be impacted by different forms of surface disturbance and disruptive activities. These activities would result in both short and long term impacts to</p>	<p>Impacts to vegetation from fluid minerals development and associated surface disturbing activities would be reduced compared to Alternative A, as short-term surface disturbances would</p>	<p>Impacts to vegetation from surface disturbing activities could be reduced compared to Alternative A, as short-term surface disturbances from fluid minerals development would be</p>	<p>Impacts to vegetation from surface disturbing activities would be the same as Alternative A, except the level of intensity would be reduced as the total short-term surface disturbance</p>	<p>Impacts from fluid mineral activities would be the same as Alternative A, except the level of intensity would be different as the projected well development would be reduced to 12,355 oil and</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>small localized areas as well as large areas from the removal or damage of vegetative surface cover and vegetation habitat.</p> <p>These impacts would result in various levels of decreases to plant community health, diversity, and impact habitats that are susceptible to invasive/noxious weeds. Increases in invasive and noxious weeds would result in a decline to native species compromising the overall habitat health (through ecological processes). Impacts to vegetation from fluid minerals development would have 130,330 acres of short-term surface disturbance and 39,050 acres of long-term surface disturbance. Most of the development and associated impacts such as loss of vegetation habitat would be from the construction and maintenance of 13,653 oil and gas wells and 2,758 CBNG wells. Impacts to vegetation could be eliminated on 274,860 acres that are closed to mineral materials development as well as on 234,230 acres closed to solid mineral development and 1,560,050 acres closed/withdrawn to locatable mineral development. These closures would help to preserve plant community functions and health as well as reduce habitat fragmentation.</p>	<p>be reduced to 104,050 acres and long-term surface disturbance acres to 33,540. Surface disturbing impacts from oil, gas, and CBNG wells could be reduced compared to Alternative A, as the number of wells would be reduced to 11,555 oil and gas wells and 2,154 CBNG wells. These reductions would reduce the total acres developed for fluid minerals thus reducing habitat fragmentation. Impacts to vegetation from solid minerals development, minerals materials development, and wind energy development would decrease compared to Alternative A. Impacts to vegetation from locatable minerals development could be reduced with the recommended withdrawal of 3,442,120 acres from development. The recommended withdrawals could reduce vegetation removal, habitat fragmentation, and invasive species establishment associated with minerals development and associated surface disturbing activities. Protection for vegetation habitat health and continuity would be increased compared to Alternative A, as ROW development and</p>	<p>reduced to 85,140 acres and long-term surface disturbances would be reduced to 27,030 acres. These disturbances would be reduced compared to Alternative A, as fluid mineral well development would be reduced to 9,533 oil and gas wells and 1,594 CBNG wells. These reductions would reduce the total acres of vegetation lost or impacted to fluid development and associated surface disturbing activities which would maintain habitat functions and health in these areas. Impacts to vegetation from solid minerals development, locatable minerals development, and minerals materials development would decrease compared to Alternative A. These closures would reduce vegetation removal, habitat fragmentation, and invasive species establishment associated with minerals development and associated surface disturbing activities. Protection for vegetation habitat health and continuity would be increased compared to Alternative A, as ROW and wind energy development and associated surface disturbing activities would be excluded or closed on 11,531,340 acres.</p>	<p>acres from fluid minerals development would be reduced to 122,910 acres and 37,720 long-term surface disturbance areas. This reduction in surface disturbance would help maintain ecological processes important to plant community health and ecological processes. The reduction in impacts to vegetation resources compared to Alternative A would mostly be due to the reduction of fluid mineral wells, with oil and gas wells being reduced to 13,083 wells and CBNG reduced to 2,686 wells. Reduction in wells could also reduce associated surface disturbances such as the construction of roads and utilities which could reduce vegetation removal compared to Alternative A. Impacts from surface disturbing activities for solid minerals development, mineral materials, and recommended withdrawals of locatable minerals development, would be the same as Alternative A. Impacts to vegetation from wind energy development would be reduced compared to Alternative A, as the amount of acres closed to wind energy development would increase to 5,000,400 acres even though the</p>	<p>gas wells and 2,462 CBNG wells. This reduction in wells would help maintain plant community ecological functions and maintain vegetation habitat continuity. Compared to Alternative A, surface disturbing activities from fluid minerals development would be reduced, which would reduce short-term surface disturbance to 112,330 acres and long-term surface disturbances to 35,430 acres. Surface disturbing activities from solid leasable minerals and mineral materials development would be the same as Alternative A. Withdrawals of locatable minerals would be proposed on 3,442,120 acres, which would reduce vegetation removal and habitat fragmentation as compared to Alternative A. Impacts to vegetation from wind energy development would be reduced compared to Alternative A, as the amount of acres closed to wind energy development would increase to 5,002,520 acres and restricted on 6,528,810 acres. These closures/restrictions would reduce the acres of surface disturbances from wind energy development which would reduce vegetation loss and habitat fragmentation.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>Surface disturbing impacts from ROW development would be excluded on 285,930 acres and avoided on 2,460,340 acres, which could reduce vegetation loss, habitat fragmentation, and invasive species establishment. Vegetation habitat continuity and ecological processes could be maintained as 437,120 acres would be closed to wind energy development and 3,888,930 acres would be restricted to wind energy development. These restrictions could reduce vegetation loss and habitat fragmentation associated with surface disturbing activities associated with wind energy development.</p>	<p>associated surface disturbing activities would be excluded on 5,141,340 acres and avoided on 6,390,010 acres.</p>		<p>amount of acres restricted to wind energy development would be reduced to 501,830 acres. These closures/restrictions would reduce the acres of surface disturbances which would reduce vegetation loss and habitat fragmentation.</p>	
Visual Resources				
<p>Visual resource categories and objectives would be the same for all alternatives. Although the amount of visual impacts would vary by alternative, it is assumed that all VRM/SIO/VQO objectives would be met under all alternatives.</p>				
<p>Visual resources could decline in quality due to surface disturbance from mineral and energy development, recreation activities, and other similar activities. The bulk of changes to the visual quality of the landscape would occur in VRM Class III or IV (BLM), moderate or low SIO (Forest Service), or the Modification level VQO (Forest Service).</p>	<p>Visual resources in sage-grouse priority habitat would be largely preserved due to efforts to protect sage-grouse and sagebrush habitat, which limit surface disturbance compared to Alternative A.</p>	<p>Visual resources in sage-grouse priority and general habitat would be largely preserved due to efforts to protect sage-grouse and sagebrush habitat, which limit surface disturbance compared to Alternative A.</p>	<p>Impacts to visual resources would be similar to Alternative A, except some visual resources could be spared due to limitations placed on surface disturbance and development density compared to Alternative A.</p>	<p>Impacts to visual resources would be less than Alternative A, due to limitations placed on surface disturbance and development density.</p>
Watershed and Water Quality				
<p>Impacts to water resources</p>	<p>Impacts to water resources</p>	<p>Impacts to water resources</p>	<p>Impacts to water resources</p>	<p>Impacts to water resources</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>would occur from surface disturbing and development activities (e.g., mineral development, ROW development) that result in vegetation removal, soil compaction, increased overland flow, and increased sediment, salt, and nutrient transport to water bodies. The impacts would be greatest under this alternative because of fewer restrictions on newly permitted surface disturbing activities within the planning area.</p> <p>Managing 285,930 acres as ROW exclusion areas, 871,780 acres as unavailable for oil and gas leasing, 40,980 acres as NSO areas, and 68,550 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to maintain soil and vegetation resources that would serve to slow runoff and decrease erosion and inputs into surface water features.</p>	<p>would occur from surface disturbing and development activities (e.g., mineral development, ROW development) that result in vegetation removal, soil compaction, increased overland flow, and increased sediment, salt, and nutrient transport to water bodies.</p> <p>Managing 5,141,340 acres as ROW exclusion areas, 6,809,580 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas would reduce surface disturbances and help to maintain soil and vegetation resources that would serve to slow runoff and decrease erosion and inputs into surface water features.</p>	<p>would occur from surface disturbing and development activities (e.g., mineral development, ROW development) that result in vegetation removal, soil compaction, increased overland flow, and increased sediment, salt, and nutrient transport to water bodies.</p> <p>Managing 11,531,340 acres as ROW exclusion areas, 16,878,220 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas would reduce surface disturbances and help to maintain soil and vegetation resources that would serve to slow runoff and decrease erosion and inputs into surface water features. Because such restrictions are the most extensive under this alternative, impacts to water resources would be the least intensive.</p>	<p>would occur from surface disturbing and development activities (e.g., mineral development, ROW development) that result in vegetation removal, soil compaction, increased overland flow, and increased sediment, salt, and nutrient transport to water bodies.</p> <p>Managing 5,141,340 acres as ROW exclusion areas and 964,860 acres as unavailable for oil and gas leasing would reduce surface disturbances and help to maintain soil and vegetation resources that would serve to slow runoff and decrease erosion and inputs into surface water features.</p>	<p>would occur from surface disturbing and development activities (e.g., mineral development, ROW development) that result in vegetation removal, soil compaction, increased overland flow, and increased sediment, salt, and nutrient transport to water bodies.</p> <p>Managing 285,930 acres as ROW exclusion areas, 892,090 acres as unavailable for oil and gas leasing, 689,300 acres as NSO areas, and 304,970 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to maintain soil and vegetation resources that would serve to slow runoff and decrease erosion and inputs into surface water features.</p>
Wild Horses				
<p>Impacts to wild horses would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources. The impacts would be greatest under this alternative because of fewer restrictions on newly permitted surface disturbing activities</p>	<p>Impacts to wild horses would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 5,141,340 acres as ROW exclusion areas,</p>	<p>Impacts to wild horses would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 11,531,340 acres as ROW exclusion areas, 16,878,220 acres as</p>	<p>Impacts to wild horses would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 5,141,340 acres as ROW exclusion areas and 964,860 acres as unavailable</p>	<p>Impacts to wild horses would occur from surface-disturbing and development activities (e.g., mineral development, ROW development) that remove or degrade forage resources.</p> <p>Managing 285,930 acres as ROW exclusion areas, 892,090 acres as unavailable</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>within the planning area. Managing 285,930 acres as ROW exclusion areas, 871,780 acres as unavailable for oil and gas leasing, 40,980 acres as NSO areas, and 68,550 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to maintain forage resources, but to a lesser extent than the other alternatives.</p>	<p>6,809,580 acres as unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas would reduce surface disturbances and help to maintain forage resources.</p>	<p>unavailable for oil and gas leasing, and 2,082,140 acres as NSO areas, would reduce surface disturbances and help to maintain forage resources. Because such restrictions are the most extensive under this alternative, impacts to wild horses would be the least intensive.</p>	<p>for oil and gas leasing would reduce surface disturbances and help to maintain forage resources.</p>	<p>for oil and gas leasing, 689,300 acres as NSO areas, and 304,970 acres in which surface disturbing activities are prohibited would reduce surface disturbances and help to maintain forage resources.</p>
Wildland Fire and Fuels				
<p>Wildland fire management would primarily be impacted by different forms of surface disturbing activities associated with minerals and energy development which could increase human presence and the use of heavy equipment. This increase in human presence and heavy equipment use could increase additional ignition sources, the probability of wildland fire occurrence, and the need for fire suppression activities. Surface disturbing activities could reduce fire fuels loads from vegetation removal, increase fire breaks from roads and clearings as well as improve access for fire suppression activities in these areas. ROW development would be excluded on 285,930 acres which could reduce human presence and ignition sources such as vehicles and machinery that could cause</p>	<p>Surface disturbing impacts from ROW development would be reduced compared to Alternative A, as areas closed to ROW development would increase to 5,141,340 acres which would reduce human presence and ignition sources from development. Impacts from wind energy development would be reduced compared to Alternative A, as areas closed to wind energy development would increase to 5,000,400 acres and restricted acres would increase to 6,530,940 acres which would reduce human and machinery caused wildfires. Potential wildfires from fluid minerals development would be reduced compared to Alternative A, as the number of wells developed would be reduced to 11,555</p>	<p>Surface disturbing impacts from ROW and wind energy development would be reduced compared to Alternative A, as areas excluded from ROWs or closed to wind development would increase to 11,531,340 acres, which would reduce human presence and ignition sources from development. Potential wildfires from fluid mineral development would be reduced compared to Alternative A, as the number of wells developed would be reduced to 9,5335 oil and gas and 1,594 CBNG wells. The development of these well would disturb fewer acres compared to Alternative A, with 85,140 acres of short-term surface disturbance and 27,030 acres of long-term surface disturbance Impacts to wildland fire from solid minerals development,</p>	<p>Surface disturbing impacts from ROW development would be reduced compared to Alternative A, as areas excluded from ROW development would increase to 5,141,340 acres which would reduce human presence and ignition sources from development. Impacts from wind energy development would be reduced compared to Alternative A, as areas closed to wind energy development would increase to 5,000,400 acres which could reduce human and machinery caused wildfires. Potential wildfires from fluid mineral development would be reduced compared to Alternative A, as the number of wells developed would be reduced to 13,083 oil and gas and 2,686 CBNG wells. The development of oil and gas wells would disturb fewer</p>	<p>Surface disturbing impacts from ROW development would be similar to Alternative A. Impacts from wind energy development would be reduced compared to Alternative A, as areas closed to wind energy development would increase to 5,002,520 acres and restricted acres would increase to 6,528,810 acres which could reduce human and machinery caused wildfires. Potential wildfires from fluid minerals development would be reduced compared to Alternative A, as the number of wells developed would be reduced to 12,355 oil and gas and 2,462 CBNG wells. The development of these well would disturb fewer acres compared to Alternative A, with 112,330 acres of short-term surface disturbance and 35,430</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>wildland fires. Impacts from wind energy development would be eliminated on 437,120 acres that are prohibited to wind energy development and reduced on 3,888,930 acres that are restricted to wind energy development which would reduce human and machinery caused wildfires. Potential sources of wildfires from fluid minerals development would increase on 130,330 acres in the short-term and 39,050 acres in the long-term in areas outside of minerals development restrictions where fluid mineral development could reduce plant community health and increase the risk or human-caused fire starts. Most of the development and associated impacts such as loss of vegetation habitat would be from the construction and maintenance of 13,653 oil and gas wells and 2,758 CBNG wells. Potential fire ignition sources from minerals development would be eliminated on 871,780 acres that are closed to mineral materials development and 234,230 acres closed to solid leasable minerals development. These closures would help to preserve plant community functions, reduce habitat fire breaks, and increase fire fuel loads in these areas. Impacts from</p>	<p>oil and gas and 2,154 CBNG wells. The development of these wells would disturb fewer acres compared to Alternative A, with 104,050 acres of short-term surface disturbance and 33,540 acres of long-term surface disturbance. Impacts to wildland fire from solid minerals development, locatable minerals development, and minerals materials development would decrease compared to Alternative A. The closures or withdrawals would reduce potential fire ignition sources associated with human presence, motor vehicle travel, and construction of minerals development.</p> <p>Within priority habitats, fuels treatments would be designed and implemented to protect sagebrush systems. Burned areas in priority habitats would be restored and recovered. Priority sage-grouse habitat suppression would prioritize firefighter and public safety to conserve the habitat.</p> <p>General sage-grouse habitat would have a high suppression priority where wildfires threaten priority sage-grouse habitat.</p>	<p>locatable minerals development, and minerals materials development would decrease compared to Alternative A. These closures/withdrawals would reduce potential fire ignition sources associated with human presence, motor vehicle travel, and construction of minerals development.</p> <p>Within priority and general habitats, fuels treatments would be designed and implemented to protect sagebrush systems. Restoration and suppression practices would be the same as Alternative B.</p>	<p>acres compared to Alternative A, with 122,910 acres of short-term surface disturbance and 37,720 acres of long-term surface disturbance. Impacts from surface disturbing activities for solid minerals development, mineral materials, and locatable minerals development would be the same as Alternative A. Wildfire restoration and suppression actions would be the same as Alternative A.</p>	<p>acres of long-term surface disturbance. Surface disturbing activities from solid minerals and mineral material development would be the same as Alternative A, and proposed locatable mineral withdrawals, 3,442,120 acres, would be greater than Alternative A. The closures and withdrawals would reduce potential human and development caused wildfires.</p> <p>Within sage-grouse core habitats, fuels treatments would be designed and implemented to protect existing sagebrush systems (refer to WGFD Protocols for Treating Sagebrush to Benefit Sage-Grouse in Appendix A). Burned areas within sage-grouse core habitats would be restored. Within sage-grouse core areas, suppression practices would be the same as Alternative B. General sage-grouse habitat would have a suppression priority commensurate with the local fire plan.</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>locatable minerals development would be eliminated on 1,560,050 acres that are withdrawn from development and could be eliminated on 117,370 acres that are proposed for withdrawal. The withdrawals could eliminate potential fire sources associated with development and surface disturbing activities.</p>				
Wildlife and Fisheries				
<p>Impacts would result from surface disturbing activities, primarily renewable and non-renewable energy development and associated infrastructure (pipelines, power lines, and roads). Estimated initial surface disturbance from oil, gas, and CBNG is 130,330 acres. Additional surface disturbing activities from wind energy, pipelines, power lines, roads, and mineral development could impact wildlife and fish through loss, alteration, and fragmentation of habitats and displacement of wildlife.</p> <p>Continued livestock grazing practices could reach Wyoming Standards for Rangeland Health or the Forest Service equivalent.</p> <p>Lek buffers and other existing restrictions would protect lands, especially sagebrush habitat, from surface disturbing activities, habitat</p>	<p>Under Alternative B, impacts from surface disturbing activities are lower than all alternatives except for Alternative C. Management would close Greater Sage-Grouse priority habitat to oil, gas, and CBNG, wind energy, as well as other minerals. Estimated initial surface disturbance from oil, gas, and CBNG is 104,050 acres.</p> <p>Additional management for livestock grazing could allow for greater achievement of Wyoming Standards for Rangeland Health or the Forest Service equivalent, and provide improved habitat for wildlife and fisheries.</p> <p>Larger lek buffers and restrictions to the density of disturbance for surface disturbing activities to protect sage-grouse habitat</p>	<p>Impacts from surface disturbing activities are the lowest under Alternative C. Management would close Greater Sage-Grouse priority habitat to oil, gas, CBNG, and wind energy; and would close priority habitat to other minerals. Estimated initial surface disturbance from oil, gas, and CBNG is 85,140 acres.</p> <p>Closing priority habitat to livestock grazing could allow for improved habitat and ample forage for wildlife and improved water quality for fisheries.</p> <p>Larger lek buffers and restrictions to the density of disturbance for surface disturbing activities to protect sage-grouse habitat would protect more land, especially sagebrush habitat, from surface disturbing activities, habitat loss, and</p>	<p>Alternative D could have impacts from surface disturbing activities that are similar to Alternative A. In some cases, such as ROWs and wind energy, Alternative D protects all core sage-grouse habitat. Estimated initial surface disturbance from oil, gas, and CBNG is 122,910 acres.</p> <p>Impacts from surface disturbing activities such as livestock grazing and other mineral development could lead to loss, alteration, and fragmentation of habitat and displacement of wildlife.</p> <p>Lek buffers, similar to Alternative A and other restrictions would protect lands, especially sagebrush habitat, from surface disturbing activities, habitat loss, and fragmentation.</p> <p>For additional information on effects to Forest Service wildlife and fish, please see</p>	<p>Overall, impacts to wildlife and fish habitat from Alternative E would be very similar to Alternative A. Estimated initial surface disturbance from oil, gas, and CBNG is 112,330. All core Greater Sage-Grouse habitat would be closed to wind development, protecting more habitat than Alternative A from loss, alteration, and fragmentation of habitat and displacement of wildlife.</p> <p>Management for livestock grazing could allow for achievement of Wyoming Standards for Rangeland Health or the Forest Service equivalent, and provide improved habitat for wildlife and fisheries.</p> <p>Lek buffers larger than Alternative A and other restrictions would protect lands, especially sagebrush habitat, from surface</p>

No Action	Alternative B	Alternative C	Alternative D	Alternative E
<p>loss, and fragmentation. For additional information on effects to Forest Service wildlife and fish, please see the Wildlife and Botany Report in Appendix J.</p>	<p>would protect more land, especially sagebrush habitat, from surface disturbing activities, habitat loss, and fragmentation. For additional information on effects to Forest Service wildlife and fish, please see the Wildlife and Botany Report in Appendix J.</p>	<p>fragmentation. Overall, Alternative C would provide the greatest protection of sagebrush habitat among all the alternatives. For additional information on effects to Forest Service wildlife and fish, please see the Wildlife and Botany Report in Appendix J.</p>	<p>the Wildlife and Botany Report in Appendix J.</p>	<p>disturbing activities, habitat loss, and fragmentation. For additional information on effects to Forest Service wildlife and fish, please see the Wildlife and Botany Report in Appendix J.</p>