



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Wyoming State Office
P.O. Box 1828
Cheyenne, Wyoming 82003-1828

In Reply Refer To:
1610 (930)

August 31, 2011

Dear Reader:

Attached for your review and comment is the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Wyoming Bureau of Land Management (BLM) Lander Field Office. The BLM prepared this document in consultation with cooperating agencies and in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, the Federal Land Policy and Management Act of 1976 (FLPMA), implementing regulations, the BLM's Land Use Planning Handbook (H-1601-1), and other applicable law and policy.

The planning area consists of about 6.6 million acres of land which includes approximately 2.4 million acres of surface lands and 2.8 million acres of Federal mineral estate managed by the Lander Field Office within Fremont, Natrona, Carbon, Sweetwater, Hot Springs, and Teton counties. Although a very small amount of Teton County is in the administrative boundary of the Lander Field Office, no BLM-administered surface or mineral estate lands occur in Teton County and, therefore, no management is proposed for the lands in this county. When approved, this RMP will replace the 1987 Lander Field Office RMP and will guide the management of public lands administered by the Lander Field Office into the future. The Lander RMP and EIS and supporting information are available on the project website at: www.blm.gov/pgdata/content/wy/en/programs/Planning/rmps/lander.html.

The BLM encourages the public to provide information and comments pertaining to the analysis presented in the Draft RMP and EIS. We are particularly interested in feedback concerning the adequacy and accuracy of the proposed alternatives, the analysis of their respective management decisions, and any new information that would help the BLM as it develops the plan. In developing the Proposed RMP and Final EIS, which is the next phase of the planning process, the decision maker may select various management decisions from each of the alternatives analyzed in the Draft RMP and EIS for the purpose of creating a management strategy that best meets the needs of the resources and values in this area under the BLM multiple use and sustained yield mandate. As a member of the public, your timely comments on the Lander RMP and EIS will help formulate the Proposed RMP and Final EIS. Comments will be accepted for ninety (90) calendar days following the Environmental Protection Agency's (EPA) publication of its Notice of Availability in the Federal Register. The BLM can best use your comments and resource information submissions if received within the review period.

Comments may be submitted electronically at: lrmp_wymail@blm.gov. Comments may also be submitted by mail to:

Lander Field Office RMP/EIS
Bureau of Land Management
Lander Field Office
1335 Main or P.O. Box 589
Lander, Wyoming 82520

To facilitate analysis of comments and information submitted, we strongly encourage you to submit comments in an electronic format.

Your review and comments on the content of this document are critical to the success of this planning effort. If you wish to submit comments on the Draft RMP and EIS, we request that you make your comments as specific as possible. Comments will be more helpful if they include suggested changes, sources, or methodologies, and reference to a section or page number. Comments containing only opinion or preferences will be considered and included as part of the decisionmaking process, although they will not receive a formal response from the BLM.

Before including your address, telephone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

The BLM will hold a series of public meetings at locations around the planning area to provide the public with additional opportunities to submit comments and seek additional information. The locations, dates, and times of these meetings will be announced at least 15 days prior to the first meeting via a press release and on the project website (www.blm.gov/wy/st/en/programs/Planning/rmps/lander.html).

Copies of the Draft RMP and EIS have been sent to affected Federal, State, and local Government agencies and to those persons who indicated that they wished to receive a copy of the Draft RMP and EIS. Copies of the Draft RMP and EIS are available on the project website and for public inspection at the following BLM locations:

Bureau of Land Management
Wyoming State Office
5353 Yellowstone Road
Cheyenne, Wyoming 82009

Bureau of Land Management
Lander Field Office
1335 Main
Lander, Wyoming 82520

Thank you for your continued interest in the Lander RMP and EIS. We appreciate the information and suggestions you contribute to the planning process. For additional information or clarification regarding this document or the planning process, please contact Kristin Yannone, RMP Project Manager at (307) 332-8400.

Sincerely,



Donald A. Simpson
State Director

Abstract

Lead Agency: U.S. Department of the Interior (DOI), Bureau of Land Management (BLM)

Type of Action: Administrative

Jurisdiction: Portions of Fremont, Natrona, Carbon, Sweetwater, Hot Springs, and Teton counties, Wyoming

Abstract: This Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) describes and analyzes alternatives for the planning and management of public lands and resources administered by the BLM, Lander Field Office. The planning area is located in west-central Wyoming, and comprises approximately 6.6 million acres of land in Fremont, Natrona, Carbon, Sweetwater, Hot Springs, and Teton counties. Although Teton County is in the administrative boundary for the Lander Field Office, no BLM-administered surface or mineral estate occurs in Teton County and, therefore, no management is proposed for the lands in this county. Within the planning area, the BLM administers approximately 2.4 million acres of surface estate and 2.8 million acres of federal mineral estate.

Through this RMP revision, the BLM is revising the existing plan (the 1987 Lander Field Office RMP) to address the availability of new data and policies, emerging issues, and changing circumstances that have occurred during the approximately 25 years since the Record of Decision (ROD) for the existing plan was signed. As part of the RMP revision process, the BLM conducted scoping to solicit input from the public and interested agencies on the nature and extent of issues and impacts to be addressed in the Draft RMP and EIS. Planning issues identified for this RMP revision focus on watershed and air resources management, energy and minerals management, fire and fuels management, invasive species, wildlife and special status species habitat, wild horses, cultural and paleontological resources, visual resources management, land ownership adjustments, access to public lands and travel, recreation and visitor use, livestock grazing, special designations, and socioeconomic conditions.

To assist the agency decision maker, cooperating agencies, and the public in focusing on appropriate solutions to planning issues, the Draft EIS considers four alternative RMPs. **Alternative A** is a continuation of current management (No Action Alternative). Under this alternative, the BLM would continue to manage the use of public lands and resources under the existing RMP, as amended. **Alternative B** emphasizes protection of physical, biological, and heritage resources, while providing for comparatively more limited resource development. **Alternative C** emphasizes resource development, while limiting protective management of physical, biological, and heritage resources. **Alternative D** is the BLM's current Preferred Alternative. Alternative D is not a final agency decision, but instead an indication of the agency's preliminary preference that considers the recommendations of cooperating agencies and BLM specialists and reflects the best combination of decisions to achieve BLM goals and policies, meet the purpose and need, and address the key planning issues.

When completed, the ROD for the RMP will provide comprehensive long-range decisions for (1) managing resources in the Lander Field Office and (2) identifying allowable uses on BLM-administered surface and mineral estate.

Comments are accepted for 90 days following the date the U.S. Environmental Protection Agency publishes the Notice of Availability for this Draft RMP and EIS in the *Federal Register*. Comments may be submitted electronically using the RMP revision website at www.blm.gov/wy/st/en/programs/Planning/rmps/lander.html or via e-mail to lrmp_wymail@blm.gov. Comments may also be submitted by mail to:

Lander Field Office RMP/EIS
Bureau of Land Management Lander Field Office
1335 Main or P.O. Box 589
Lander, Wyoming 82520

Executive Summary

Introduction

This Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) describes and analyzes alternatives for the future management of public lands and resources administered by the Bureau of Land Management (BLM), Lander Field Office. Located in west-central Wyoming, the administrative area covers approximately 6.6 million acres of land in Fremont, Natrona, Carbon, Sweetwater, Hot Springs, and Teton counties. Although Teton County is in the administrative boundary for Lander Field Office, no BLM-administered surface or mineral estate occur in Teton County and, therefore, no management is proposed for lands in this county. Of the total area administered by the Lander Field Office (planning area), approximately 2.4 million acres are BLM-administered federal surface estate and 2.8 million acres are BLM-administered federal mineral estate. BLM-administered lands in the planning area are intermingled with state and private lands, and are adjacent to the Wind River Indian Reservation (WRIR) and the Shoshone National Forest. While the BLM has Trust Duties for the management of minerals on the WRIR, the BLM does not make management decisions for the WRIR and Trust Duties are conducted independent of this RMP.

Revising existing land use plans is a major federal action for the BLM. The National Environmental Policy Act of 1969 (NEPA), as amended, requires federal agencies to prepare an EIS for major federal actions; thus, this Draft RMP and EIS is a combined document. The Draft EIS analyzes the impacts of four alternative RMPs for the planning area, including the No Action Alternative (Alternative A) and the Preferred Alternative (Alternative D). The No Action Alternative reflects current management under the existing land use plan. The analysis considers a range of alternatives that provide for various levels of physical, biological, and heritage resource protection as well as opportunities for motorized and nonmotorized recreational activities, leasing and development of mineral resources, livestock grazing, and other land use activities.

Purpose and Need

The Federal Land Policy and Management Act (FLPMA) requires developing, maintaining, and, as appropriate, revising land use plans for public lands. BLM-administered lands within the planning area are currently managed according to the 1987 Lander Field Office RMP (existing plan). Since the Record of Decision (ROD) for the existing plan, new data have become available and laws, regulations, and policies regarding management of these public lands have changed. In addition, decisions in the existing plan do not satisfactorily address all new and emerging issues in the planning area. These changes and potential deficiencies created the need to revise the existing plan. The Lander Field Office RMP revision is anticipated to be completed by September 2012.

The purpose, or goal, of the RMP is to ensure lands administered by the BLM are managed in accordance with the FLPMA and the principles of multiple use and sustained yield. The land use plan establishes management direction for land within an administrative area through desired outcomes and actions needed to achieve them. The reason for revising the existing plan is to address the changes occurring in the planning area and to select a future management strategy that best achieves a combination of the following elements:

- Employ a community-based planning approach to collaborate with federal, state, and local cooperating agencies.

- Establish goals and objectives for managing resources and resource uses in the approximately 2.4 million surface acres and 2.8 million acres of federal mineral estate in the planning area administered by the BLM in accordance with the principles of multiple use and sustained yield.
- Identify land use plan decisions to guide future land-management actions and subsequent site-specific implementation decisions.
- Identify management actions and allowable uses anticipated to achieve the established goals and objectives and reach desired outcomes.
- Provide comprehensive management direction by making land use decisions for all appropriate resources and resource uses administered by the Lander Field Office.
- Provide for compliance with applicable tribal, federal, and state laws, standards, and implementation plans, and BLM policies and regulations.
- Recognize the nation's need for domestic sources of minerals, renewable energy, food, timber, and fiber, and incorporate requirements of the Energy Policy Act of 2005 (Public Law 109-58).
- Retain flexibility to adapt to new and emerging issues and opportunities and to provide for adjustments to decisions over time based on new information and monitoring.
- Strive to be compatible with the plans and policies of adjacent local, state, tribal, and federal agencies and consistent with federal law, regulations, and BLM policy.

Cooperating Agencies and Tribal Consultation

Title II, Section 202, of FLPMA directs the BLM to coordinate planning efforts with Native American tribes, other federal departments, and agencies of the state and local governments as part of its land use planning process. The BLM accomplished coordination with other agencies and consistency with other plans through ongoing communications, meetings, and collaborative efforts with the Interdisciplinary Team, which includes BLM specialists and federal, state, and local agencies. The Lander Field Office extended cooperating agency status to the State of Wyoming, Fremont County, Natrona County, Carbon County, Sweetwater County, Hot Springs County, various conservation districts, federal agencies, and tribal governments. Cooperating agencies provided input during the initial scoping process on issues of special expertise or legal jurisdiction. In addition, cooperating agencies participated in a series of alternative formulation workshops, reviewed draft information and documents, and periodically met with BLM management and resource specialists throughout the revision process to discuss planning issues and provide input to the process.

Section 7 of the Endangered Species Act (ESA) requires that a federal lead agency consult with the U.S. Fish and Wildlife Service (USFWS) to determine whether its proposed action would jeopardize the continued existence of a threatened or endangered species. The USFWS provided a species list to the Lander Field Office for evaluating BLM Section 7 responsibilities. This list is updated at least annually and the RMP revision reflects the most up to date list from the USFWS.

Consultation with Native American tribes is a requirement of FLPMA and BLM guidance. The BLM took steps to contact the tribes and include them in the scoping process. The BLM sent letters to multiple tribes requesting information to be considered in the planning process and inviting them to be part of the planning process through consultation, public scoping meetings,

field trips, and meetings with tribal representatives. Representatives from the Lander Field Office followed up on these letters with telephone calls to each tribe. In letters and during the follow-up calls, the BLM stressed the desire for the tribes to review and comment on the Draft RMP and EIS.

Scoping and Public Involvement

The intent of the scoping process is to provide an opportunity for the public, tribes, government agencies, and interest groups to participate in determining the scope and issues to be addressed by alternatives and analyses in the planning process and the EIS. In general, public involvement assists the agency by broadening the information base for decision making, disseminating information to the public about the RMP and EIS, and ensuring that public needs and viewpoints are brought to the attention of the BLM.

The scoping period was from February 13, 2007 to April 13, 2007. The BLM solicited written comments on the RMP revision process, issues, and impacts and held a series of five public meetings in the planning area. The BLM structured the meetings in an open house format, with resource specialists and other representatives of the BLM on hand to personally address questions and provide information to meeting participants.

Public participation will be ongoing throughout the planning process. The Proposed RMP and Final EIS will consider all substantive oral and written comments received during the 90-day public comment period for this Draft RMP and EIS. In addition, members of the public with standing have the opportunity to protest the content of the Proposed RMP and Final EIS during the specified 30-day protest period. In addition, the public will have the opportunity to comment on implementation level decisions during the 30 days following the release of the Proposed RMP and Final EIS. The ROD will be issued by the BLM after the release of the Proposed RMP and Final EIS, the Governor's Consistency Review, and protest resolution.

Issues Addressed

Planning issues identified through the scoping process and other public outreach efforts focus on the demands, concerns, conflicts, or problems concerning use or management of public lands and resources in the planning area. Key planning issues within the scope of the EIS are used to develop alternatives or are otherwise addressed in the EIS. The main issues described and analyzed in the EIS include the following:

Energy and Minerals Management

- What areas are suitable or not suitable for energy and mineral resources development?
- What areas should be offered for oil and gas leasing with Master Leasing Plans?
- What level of development should be allowed in areas suitable for energy and mineral resource development?

Management of Riparian Areas and Water Quality Concerns

- How should riparian areas be managed to protect the integrity of fish and wildlife habitat as well as to protect local water quality?

Livestock Grazing and Vegetation Management

- How should soil, water, and vegetation be managed to reduce fuel loads and achieve forest health and healthy rangelands while providing for livestock grazing and fish and wildlife habitat?

Recreation/Visitor Use and Safety Management

- How should BLM-administered land be managed to provide access for recreation and general enjoyment of the public lands while protecting cultural and natural resources and public safety?

Travel Management, Including Off-Highway Traffic

- How should travel be managed to provide access for recreation, commercial uses, and general enjoyment of the public lands while protecting cultural and natural resources?

Management of Wildlife Habitat, Including Protection of Sensitive Species Habitat

- How should special status species conservation strategies be applied given the BLM's requirement for multiple use management and sustained yield? How will these strategies affect other public land resources?

Access to Public Lands and Management Considerations

- What land adjustments are necessary to improve access and management of public lands?

Management of Areas with Special Values

- What areas, if any, contain unique or sensitive resources requiring special management?

Management and Protection of Public Land Resources While Allowing for Multiple Uses

- How should BLM-administered land be managed to protect natural and cultural resources while fulfilling the BLM's mandate to provide access for multiple uses?

Planning Criteria

Planning criteria are the standards, rules, and guidelines that help direct the RMP planning process. In conjunction with planning issues, planning criteria ensure that the planning process is focused and incorporates appropriate analyses. The criteria also help guide final RMP selection and the BLM uses the criteria as a basis for evaluating the responsiveness of planning options. Planning criteria for this RMP revision are summarized below; the full planning criteria are listed in Chapter 1, Introduction.

- Planning decisions will cover BLM-administered public lands, including split-estate lands where the subsurface minerals are severed from the surface right, and the BLM has legal jurisdiction over one or the other. No decisions will be made relative to non-BLM-administered lands.
- All proposed management actions will be based upon current scientific information, research and technology, as well as existing inventory and monitoring information.
- The RMP will recognize valid and existing rights.

- The planning process will incorporate the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the State of Wyoming as goal statements.
- The RMP will comply with all applicable laws, regulations, and policies.
- A reasonable foreseeable development scenario for fluid minerals will be developed from analysis of past activity and production, which will aid in environmental consequences analysis.
- The RMP revision planning effort will be collaborative and multi-jurisdictional. The BLM will strive to ensure that its management decisions complement its planning jurisdictions and adjoining properties within the boundaries prescribed by law and regulation.
- Decisions in the plan will strive to be compatible with the existing plans and policies of adjacent local, state, federal, and tribal agencies as long as the decisions are consistent with the purposes, policies, and programs of federal law and regulations applicable to public lands. The BLM and cooperating agencies will jointly develop a range of alternatives for resolution of resource management issues and management concerns.
- Areas with special environmental quality will be protected and if necessary designated as areas of critical environmental concern (ACECs), wild and scenic rivers (WSRs) and lands with wilderness characteristics or other appropriate designations.
- The National Sage-grouse Strategy (BLM 2004a) requires that impacts to sagebrush habitat and sagebrush-dependent wildlife species be analyzed and considered in BLM land use planning efforts for public lands with sagebrush habitat in the planning area. The BLM recognizes the Wyoming Governor's designation of the sage-grouse Core Area and will cooperate with the State of Wyoming to manage these areas for healthy sage-grouse populations.

Alternatives Considered in Detail

To comply with NEPA requirements in the development of alternatives for this RMP and EIS, the BLM sought public input and analyzed a range of alternatives, including a No Action Alternative (Alternative A). The BLM conducted a series of workshops with an Interdisciplinary Team comprised of BLM specialists and local, state, and federal cooperating agencies. The BLM and cooperating agencies formulated two alternatives (B and C) that reflect a range of resource use and conservation. The major issues addressed include: (1) energy and mineral resource exploration and development; (2) vegetation and habitat management; (3) land ownership adjustments and trails and travel management; and (4) special designations. Following analysis of alternatives A, B, and C, the Interdisciplinary Team provided recommendations for selecting the Preferred Alternative (Alternative D). The Preferred Alternative does not represent a final BLM decision and could change between publication of the Draft RMP and EIS and Proposed RMP and Final EIS based on public comments on the draft document, new information, or changes in laws, regulations, or BLM policies. The BLM will make its final decision after it publishes the Proposed RMP and Final EIS, and will document its decision in a ROD.

Including the No Action Alternative (Alternative A), the four alternatives analyzed in this Draft RMP and EIS represent differing approaches to managing resources and resource uses in the

planning area. Each alternative comprises two categories of land use planning decisions: (1) desired outcomes (goals and objectives) and (2) allowable uses and management actions.

Goals and objectives direct BLM actions to most effectively meet legal mandates, regulations, and agency policy, as well as local and regional resource needs. Goals are broad statements of desired outcomes that are usually not quantifiable. Objectives identify more specific desired outcomes for resources and might include a measurable component. Objectives are generally expected to achieve the stated goals.

Allowable uses are a category of land use decisions that identify where specific land uses are allowed, restricted, or excluded on BLM-administered lands and federal mineral estate in the planning area. Management actions are proactive measures (for example, measures the BLM will implement to enhance watershed function and condition), or limitations intended to guide BLM activities in the planning area. Allowable uses often contain a spatial component because the alternatives identify whether particular land uses are allowed, restricted, or excluded. Alternatives may include specific management actions to meet goals and objectives and may exclude certain land uses to protect resource values.

Alternative A

The No Action Alternative represents continuation of current management and provides a baseline from which to identify potential environmental consequences when compared to the action alternatives. The No Action Alternative describes current resource and land management direction in the planning area under the existing plan. Current management identifies constraints on mineral leasing in the planning area to protect resource values that are incompatible with mineral resources activity. Current management includes nine ACECs and nine WSR eligible waterways. The BLM manages three Special Recreation Management Areas (SRMAs) to protect the recreation setting and provide for specific recreation opportunities. Alternative A allows livestock grazing on 2,324,934 acres in the planning area. The BLM would continue to manage vegetative communities to meet vegetative attributes as identified in the Natural Resource Conservation Service's Ecological Site Guides and utilize vegetation treatments to increase forage production while meeting the Wyoming Standards for Healthy Rangelands. Constraints on resource uses specifically to protect fish and wildlife resources are only used in a few cases under Alternative A, including seasonal limitations on surface-disturbing activities in important habitat and buffers to restrict surface-disturbing activities around greater sage-grouse leks.

Alternative B

Alternative B emphasizes conservation of physical, biological, heritage and visual resources while managing the public lands for multiple use. Resource development and other active land uses would still be authorized, but greater restrictions would be placed on where and how they occur. Alternative B would use a low impact approach to resource management, utilizing natural systems to achieve goals and objectives – particularly towards achieving Wyoming Standards for Healthy Rangelands, proper functioning condition, and forest health – and allow the least amount of infrastructure and human presence as possible. In order to avoid potential lasting impacts from more intensive management, making improvements to resource condition may take longer to achieve than under a more development oriented approach. Compared to other alternatives, Alternative B would preserve the most land area for physical, biological, and heritage resources; would designate the highest number of ACECs and SRMAs; and would be the most restrictive to motorized travel and mineral development.

Alternative C

Alternative C emphasizes resource uses by reducing constraints placed on physical, biological, heritage, and visual resources. Alternative C gives priority to land uses such as oil and gas development, mining, rights-of-way (ROWS), and livestock grazing when managing the public lands for multiple use. Fewer restrictions protecting biological, physical, heritage and visual resources would be placed on surface-disturbing and disruptive activities to facilitate land uses and development. Compared to other alternatives, Alternative C would preserve the least land area for physical, biological, and heritage resources – no ACECs are designated and National Wild and Scenic River System (NWSRS)-eligible waterways would not be found suitable and would be managed in accordance with other resource programs without special protections – and it is the least restrictive to motorized vehicle use, mineral development, and livestock grazing.

Alternative D (Preferred Alternative)

Alternative D balances the use and conservation of planning area resources. This alternative generally allows resource use if the activity can be conducted in a manner that conserves physical, biological, heritage and visual resources. Alternative D designates the second largest land area as SRMAs and ACECs and emphasizes moderate constraints on resource uses (e.g., mineral development) to reduce adverse impacts to resource values. Fish and wildlife resources under Alternative D, in general, receive more protection compared to Alternative A, especially within important habitat areas including larger buffers around active raptor nests ($\frac{3}{4}$ mile to 1 mile) and greater sage-grouse leks (0.6 mile within Core Area). Under Alternative D, the Wyoming Governor's Greater Sage-grouse Core Area strategy is incorporated into management actions. In areas of high mineral potential, Designated Development Areas are established which emphasize mineral use. In Dubois, mineral activities are limited and the area is closed to oil and gas leasing for the protection of special status species and to support destination recreation associated with bighorn sheep. A heritage tourism and recreation buffer is placed around the Congressionally Designated Trails.

Environmental Consequences

This section summarizes the environmental consequences that would result from implementing each of the four alternatives. The purpose of the environmental consequences analysis is to determine the potential impacts of the federal action under each of the four alternatives on the human environment, while focusing on key planning issues identified by the BLM and raised during the scoping process. The analysis of environmental consequences is arranged by the following resource areas: physical resources, mineral resources, fire and fuels management, biological resources, heritage and visual resources, land resources, special designations, and socioeconomics.

Physical Resources

Physical Resources include air quality, soil, water, cave and karst resources, and lands with wilderness characteristics. Emissions of air pollutants in the planning area would primarily result from oil and gas development, mining, and other mineral development. Emissions associated with these actions would outweigh those produced from other proposed activities. Compared against 2008 baseline emissions, Alternative B would result in the smallest increase in total air pollutant emissions in 2018 and 2027; however, this alternative would result in the highest carbon monoxide emissions of any alternative. Total emissions estimated under Alternative D would result in the

second-smallest increase over the baseline, while Alternative C would result in the greatest increase. Emissions for all analyzed pollutants are estimated to increase over baseline levels in the short term (2018), and then begin to decrease from the short term to the long term (2027).

The EPA has determined that six greenhouse gases (GHGs) are pollutants and subject to regulation under the Clean Air Act (CAA): carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Carbon dioxide, methane, and nitrous oxide are the most commonly emitted GHGs by the types of activities that occur in the planning area. Oil and gas production is the major contributor to GHG emissions under all alternatives. Under all of the alternatives, GHG emissions are estimated to increase in the short term (2018) and then begin decrease in the long term (2027). Alternative C is estimated to result in the greatest increase of GHG emissions in the short and long term, followed closely by Alternative A, then Alternative D. Alternative B would result in the smallest increase of GHG emissions. The total estimated GHG emissions under Alternative D in 2018 are approximately 0.01 percent of the total U.S. emissions in 2008. Worldwide GHG emissions, atmospheric conditions, and a variety of other factors contribute to climate change at a global scale, and, therefore, it is not possible to distinguish the impacts to global climate change from localized GHG emissions originating in the planning area.

Impacts to soil resources result from surface disturbance associated with a variety of resource programs including mineral development, road construction, and recreation such as off-highway vehicle (OHV) use. Actions that restrict surface disturbance or restore vegetation on disturbed areas occur under all alternatives and generally are considered to have a beneficial impact on soil resources by limiting erosion. Alternative B is anticipated to produce the least potential adverse impacts to soil resources because management actions are anticipated to result in the least soil disturbance. Based on anticipated surface disturbance, Alternative C is anticipated to result in the most adverse impacts to soil resources, followed by Alternative A. Alternative D, though anticipated to result in more disturbance than Alternative B, would utilize similar erosion-reducing measures and would result in the second-fewest adverse impacts to soil resources.

Surface disturbance has an adverse impact on water resources when it contributes to offsite erosion and sediment delivery. Management actions under Alternative B would result in the least amount of projected surface disturbance and greatest number of resource use restrictions, and thus the fewest adverse impacts to surface and groundwater quality and quantity. Similarly, based on anticipated surface disturbance, Alternative C would result in the greatest adverse impacts to water resources. Alternative A manages surface-disturbing activities similar to Alternative C. Management under Alternative D is most similar to that under Alternative B, though it would likely result in more adverse impacts to water resources compared to that alternative due to greater total surface disturbance and allowing necessary and mitigated surface-disturbing activities within 500 feet of surface water. Under all alternatives, best management practices, watershed enhancement projects, conservation practices, Stormwater Discharge Plans, Weed Management Area Plans, project-specific soil investigations, and reclamation plans would reduce impacts to soil, limiting adverse impacts to surface water.

Adverse impacts to cave and karst resources result from actions that disturb or destroy these resources or disrupt the habitat of flora and fauna that utilize them. Actions that result in data collection or preservation of cave and karst resources and their associated values are considered beneficial impacts. Designating the Lander Slope ACEC under alternatives A, B, and D would protect cave and karst resources known to be in that area. Under all alternatives, the discovery of significant caves that fall within the protection of federal legislation would be specially managed

under a protocol developed to meet preservation needs. Currently, the BLM has not completed a formal survey of cave and karst resources in the planning area.

Lands with wilderness characteristics include those of appropriate size, naturalness and opportunities for solitude or primitive/unconfined recreation that are not within designated Wilderness areas or Wilderness Study Areas (WSAs). The Little Red Creek Complex (5,490 acres) is the only identified land with wilderness characteristics in the planning area. Alternatives A and C do not propose specific management for the Little Red Creek Complex to preserve its wilderness characteristics. Although Alternative A manages the area as an ACEC to preserve the naturalness of the area, this designation would only result in limited beneficial impacts to opportunities for solitude and primitive/unconfined recreation because it allows motorized vehicle use. Alternative C would not manage the area as an ACEC, which would increase adverse impacts to wilderness characteristics from a variety of resource uses. Under Alternative B, the entire Little Red Creek Complex would be managed as non-WSA lands with wilderness characteristics to protect its naturalness and opportunities for solitude or primitive/unconfined recreation. The area would be closed to motorized and mechanized vehicle use while providing access and recreational opportunities that maintain the area's wilderness characteristics. Alternative D manages 4,954 acres of the Little Red Creek Complex as non-WSA lands with wilderness characteristics with similar prescriptions as under Alternative B.

Mineral Resources

Implementation of any of the alternatives would result in public lands being opened (a beneficial impact to mineral resources), or withdrawn or segregated (an adverse impact to mineral resources) from locatable mineral activity. Alternative B, due to withdrawals to protect areas with cultural, paleontological, and wilderness resource values; SRMAs; and ACECs would result in the largest acreage proposed for withdrawal from locatable mineral entry (1,632,605 acres), followed by Alternative D (42,855 acres), Alternative A (23,114 acres) and Alternative C (0 acres). Approximately 8,364 acres of pre-FLPMA classifications are also identified for withdrawal from application of the mining laws and would apply under each alternative. These withdrawals, designated by Congress, are not within BLM authority to modify and would continue indefinitely.

Lands in the planning area have been classified as having low, very low, and negligible potential for geothermal development. There could, however, be increased interest in geothermal exploration and development in the planning area over the life of the plan. The primary impacts to geothermal exploration and development – closing areas to leasing or managing areas with restrictions – are similar to those described for oil and gas and, therefore, impacts to geothermal development would parallel those described below under oil and gas.

The potential for oil and gas occurrence in the planning area ranges from high to very low. Adverse impacts to oil and gas exploration and development result from management actions that restrict or constrain the potential for oil and gas leasing, development, and exploration. Management actions that limit restrictions or maintain areas as open for oil and gas exploration and development would result in beneficial impacts. Limitations and restrictions on surface-disturbing activities for oil and gas exploration and development also apply to geophysical exploration and development. Impacts to oil and gas development and geophysical operations under alternatives A and C are similar in type, although they vary in extent because of the different areas managed as closed to oil and gas leasing and different surface-use restrictions. Alternative C only applies no surface occupancy (NSO) restrictions within ¼ mile of greater sage-grouse leks and around some cultural resources. Adverse impacts to oil and gas exploration and development

would be greatest under Alternative B, which closes the greater sage-grouse Core Area to oil and gas leasing. Alternative D would result in the second-most potential adverse impacts to oil and gas exploration, as it closes the second-most acreage to leasing and manages the most area with major restrictions, such as NSO restrictions, as well as applying a Master Leasing Plan to 143,448 acres in the Beaver Rim area (Alternative B closes this area to oil and gas leasing).

The planning area contains 42,291 surface acres with phosphate potential; phosphate is the only solid leasable mineral with substantial occurrence and development potential in the planning area. Alternative A closes 10,047 surface acres to phosphate leasing (approximately 24 percent of the area with phosphate potential), Alternative B closes 39,592 acres (approximately 94 percent of the area with phosphate potential), Alternative C closes 1,721 acres (approximately 4 percent of the area with phosphate potential), and Alternative D closes 36,724 acres (approximately 87 percent of the area with phosphate potential). Alternative B would result in the largest adverse impact to developing known phosphate resources, followed by alternatives D, A, and C.

The likelihood of any other types of leasable mineral (i.e., coal and oil shale) exploration or development in the planning area is remote. If the BLM receives an application for a federal coal lease, it will require an appropriate land use and environmental analysis, including a coal screening process, to determine whether the area(s) proposed for leasing are acceptable for coal development and leasing (in accordance with 43 Code of Federal Regulations (CFR) 3420.1-4). The Programmatic EIS for Oil Shale and Tar Sands included the southern edge of the planning area as oil shale resources; however, the area identified is not economically feasible to produce. Additional evaluation and an RMP amendment would be required for the exploration, development, and leasing of oil shale.

Mineral materials (also called salable minerals) include sand, gravel, decorative stone such as common granite or moss rock, and other mineral materials not subject to mineral leasing or location under the mining laws. Implementation of management actions under the alternatives could result in impacts that open, limit, or deny access to and disposal of mineral materials from public lands in the planning area. Such management commonly includes restrictions on surface-disturbing activities or closures to mineral materials disposals. Alternative B has the most adverse impacts to mineral material disposals because the most lands are closed to disposals. Alternative D has the next greatest impacts due to ACECs and other resource protective areas closed to disposal. Alternative A has the second fewest adverse impacts, followed by Alternative C, which places no restrictions on disposals other than standard stipulations and has the fewest adverse impacts with regard to ACECs.

Fire and Fuels Management

Fire is an integral part of natural ecosystem function; however, the natural fire regime has largely been suppressed in the planning area. Although the suppression of the natural fire regime is considered an adverse impact to fire ecology, actions contributing to an increase in the incidence of wildfire or limiting the ability to effectively fight wildfires are considered adverse impacts to fire and fuels management. The various alternatives would affect the management of wildfires (unplanned ignitions), prescribed fires (planned ignitions), and the stabilization and rehabilitation of areas following wildland fires. Alternative B would result in the most adverse impacts to wildfire suppression by restricting suppression tactics; Alternative C would result in the most beneficial impacts to wildfire suppression by allowing the full range of management actions across the planning area. Alternatives A and D are more restrictive than Alternative C, but provide similar flexibility to suppress wildfire while also minimizing damage to resources.

Conversely, Alternative B would provide for the greatest opportunity to allow fire to return to its natural role in the ecosystem, utilize fuels treatments to protect wildland-urban interface (WUI) areas, and restore certain ecosystems.

Restricting the use of prescribed fire would result in adverse impacts to fire and fuels management by limiting its use to meet other resource objectives, while treating areas with prescribed fire would result in beneficial impacts. Alternatives A and C would result in prescribed burns on approximately 300 acres per year. Alternative B would result in the greatest use of prescribed burns (2,000 acres per year) followed by Alternative D (500 acres per year). Under Alternative B, prescribed fire may be restricted in ACECs to protect resource values, but the larger ACEC area under alternatives B and D would also allow the reestablishment of natural fire regimes using natural processes. These alternatives would also emphasize treatments to reduce fuels in the WUI.

Biological Resources

Biological Resources include vegetation, fish, wildlife, special status species, and wild horses. Vegetation resources analyzed in this RMP revision include forests, woodlands, and aspen communities; grassland and shrubland communities; the management of invasive nonnative species (INNS); and riparian-wetland resources. Long-term surface disturbance would contribute to the decline in abundance, distribution, or health of vegetation communities in the planning area and could increase the presence of INNS. Conversely, vegetation treatments causing short-term surface disturbance would improve vegetation health and diversity over the long term, and may reduce the severity of wildland fires that alter the vegetation communities.

Alternative C would result in the most long-term impacts from surface disturbance, followed by alternatives A, D, and B, a portion of which could result in adverse impacts to forests and woodlands by contributing to the declines in forests and forest health and forest products. Alternative C would allow the most motorized vehicle use and would result in the most new road construction, followed by alternatives A, D, and B; these activities could increase the risk of unplanned ignitions and unauthorized wood cutting. Alternative C, followed by alternatives A, B, and D, implements the most silvicultural practices to actively manage forests and woodlands, which would benefit forest and woodland health by decreasing the risk of landscape-level wildfires and increasing forest product availability. Alternative C would, generally, result in the most beneficial impacts from active silviculture treatments. Alternative B would provide the greatest beneficial impact to the forest and woodland ecology because it emphasizes natural processes. Alternative D would result in more beneficial impacts to forest and woodlands management than Alternative A because it allows all available tools and silvicultural techniques to maintain forest health, while considering the potential adverse impacts of certain techniques to other resources (e.g., impacts of clear-cuts to soil and riparian-wetland areas).

Management actions that advance active vegetation management would result in beneficial impacts to grassland and shrubland communities, while management that allows long-term surface disturbance or activities that cause vegetation to be removed would result in adverse impacts. Long-term disturbance and vegetation removal would contribute to the decline in abundance, distribution, or diversity of grasslands and shrubland communities. Alternative C would result in the greatest area of long-term disturbance from development, followed by alternatives A, D, and B. In energy development areas, reclamation standards under alternatives C and D address soil stabilization in the interim with a higher percentage of grasses, rather than restoring predisturbance plant communities. Alternative B would result in the greatest chance of successful reestablishment of predisturbance plant community grasses and shrubs following

construction. Overall, Alternative B contains the least surface disturbance and the most proactive management such as vegetative treatments and would result in the greatest beneficial impacts to grassland and shrubland communities, followed by alternatives D, A, and C.

The presence of INNS is considered an adverse impact to other biological resources in the planning area and, in spite of management proposed in this RMP, invasive species are expected to spread under all alternatives. Those alternatives projected to involve the greatest amount of surface disturbance would have the potential to result in the greatest adverse impacts from the spread of invasive species. Based on projected surface disturbance and the types of reclamation requirements imposed, Alternative C would result in the greatest potential for the spread of invasive species, followed by alternatives A, D, and B. Alternative D is projected to result in greater surface disturbance than Alternative A, but contains more stringent reclamation requirements that would result in a reduced potential for the spread of invasive species.

Adverse impacts to riparian-wetland resources arise from surface disturbance associated with mineral resources development, motorized vehicle use, road construction, and livestock grazing that cause a change in riparian-wetland functionality, such as changes in sediment loading rates or hydrology. Impacts from wildlife and wild horses are more localized and site specific than the broad impacts from livestock grazing. Alternative C would result in the greatest projected total surface disturbance contribution to sediment loading, followed by alternatives A, D, and B. Alternative B would result in the greatest beneficial impact to riparian-wetland resources by imposing more restrictions on surface-disturbing activities close to riparian-wetland resources and by instituting more beneficial proactive management actions, such as watershed improvement projects. Overall, Alternative B would result in the fewest adverse impacts to riparian-wetland resources and Alternative C would result in the most. In general, Alternative D applies more restrictions on surface-disturbing activities and resource uses that would benefit riparian-wetland resources than Alternative A.

Fish and fish habitat are directly impacted by activities that generate soil erosion and can increase sediment into fish-bearing waterbodies. Fish habitat is also affected by the amount of vegetative cover along stream banks to regulate water temperatures or vehicles in the stream channel. Alternative B provides the greatest protection from surface-disturbing activities and would have the greatest beneficial impact to fish resources. Alternative C provides the least amount of protection and would have the greatest potential for adverse impacts to fish resources, followed by alternatives A and D. Alternative D is similar to Alternative A, but Alternative D includes increased protection in areas important for other resources (particularly ACEC, WSRs, and WSAs), which would benefit fish resources.

The primary adverse impacts to wildlife result from habitat loss or degradation, disturbance/disruption of wildlife during sensitive times, or direct mortality; the primary beneficial impacts to wildlife result from management that restricts surface-disturbing activities in known or potential wildlife habitat and disruptive activities (e.g., motorized vehicle use, recreation, etc.) that can cause the abandonment of nest sites or home ranges. Alternative B minimizes wildlife habitat loss and fragmentation in the planning area (e.g., closing areas to oil and gas development) the most, followed by alternatives D, A, and C respectively. Under alternatives A, B, and D, timing limitations (TLS) protect big game crucial winter range and elk winter range. Extending the TLS buffer for active raptor nests from $\frac{3}{4}$ mile (under Alternative A) to 1.5 miles would protect an additional 480,406 acres under Alternative B during raptor nesting periods. Alternative D extends this buffer to 1 mile around bald eagle and ferruginous hawk nests. Alternative C restricts surface-disturbing activities in the fewest areas and contains the least management designed to

improve habitat quality. Alternative B designates the most ACECs that preserve wildlife habitat, followed by Alternative D. Alternative C designates no ACECs to protect wildlife habitat.

Impacts to special status plants, fish, and wildlife species generally parallel those for vegetation, fish, and wildlife; however, all the alternatives include additional protective management for special status species. Overall, proactive management actions would be most beneficial to special status species under Alternative B, followed by alternatives D, A, and C. Activities that disturb soil and vegetation communities would directly impact special status plants. Alternative B provides the greatest protection from surface-disturbing activities and includes the greatest amount of beneficial proactive management; potential beneficial impacts would be lower under alternatives D, A, and C, respectively. Allowable uses and management actions with potential to degrade water quality in the headwaters of the Wind River would affect special status fish species. Alternative B provides the greatest protection from surface-disturbing activities and would result in the greatest beneficial impacts to special status fish habitat, followed by alternatives D, A, and C. Alternative B would have the greatest beneficial impact because it includes the most proactive management to restore and enhance habitats for special status wildlife species, while Alternative C would have the greatest adverse impacts. While alternatives A and D would result in adverse impacts to special status wildlife species, surface-disturbing activity restrictions, habitat management, and special designations under Alternative D include management, such as limiting development density within the greater sage-grouse Core Area, that would limit these adverse impacts from habitat loss and fragmentation to a greater extent than under the other alternatives.

The BLM manages wild horses for self-sustaining populations of healthy, free-roaming animals in balance with other uses and the productive capacity of their habitat. Impacts to wild horses include management that affects vegetation for forage, the availability of water, or other habitat components necessary to maintain the health and free-roaming nature of horses at the appropriate management level in Herd Management Areas (HMAs). Alternative B would result in the greatest beneficial impact to wild horses because it would increase forage and support the general free-roaming nature of wild horses through fence removal. Although less so than Alternative B, Alternative D focuses on maintenance of healthy, viable herds and habitat, and emphasizes conservation of physical, biological, heritage, and visual resources with constraints on resource uses that would benefit wild horses. Alternative C, followed by Alternative A, would result in the greatest expansions of infrastructure to support managed grazing and the most human presence in HMAs, resulting in the greatest adverse impacts to wild horses' free-roaming nature.

Heritage and Visual Resources

Heritage and Visual Resources include cultural resources, paleontological resources, and visual resources management. Cultural resources are defined as the places where the physical remains of past peoples can be found. Adverse effects to cultural resources typically result when there is a loss of information and/or a loss of integrity of the resource, including visual and audible intrusions or vandalism. Overall, Alternative C is projected to result in the most surface disturbance and uses reactive management to comply with regulations to protect cultural resources. Alternative A, uses a similar management approach to protect important cultural resources, but also includes proactive management for certain sites. Alternative B relies on proactive management to prevent effects to a wider range of important cultural sites where setting is important, and includes more protective measures for Warm Springs Canyon Flume. Alternative D overall reflects the middle ground between alternatives B and C, providing less protection to Warm Springs Canyon Flume than Alternative B, but also identifying situations in which more protective measures than those specified in alternatives A or C will be used.

Paleontological resources are defined as any fossilized remains, traces, or imprints of organisms, preserved in or on the Earth's crust, that are of paleontological interest and that provide information about the history of life on Earth. Adverse effects to significant paleontological resources typically result in a loss of information and/or a loss of integrity of the resource. Adverse effects to significant paleontological resources on BLM-administered lands include actions that physically damage or destroy all or part of a resource and lack of protective action, which can result in resource deterioration. Adverse effects also result from increased access to areas containing paleontological resources, which can lead to increased use, erosion, looting, and vandalism. Alternatives B and D would result in the least adverse effects and most resource protection compared to the other alternatives by restricting resource uses in important paleontological areas like Beaver Rim, Bison Basin, Bonneville to Lost Cabin, Lander Slope, and Gas Hills, and by generally restricting surface-disturbing activities and limiting motorized vehicle access. Alternative C provides the least protection and the greatest exposure to direct effects from surface-disturbing activities, followed by Alternative A. Alternatives A and C also manage the important paleontological areas specifically protected under alternatives B and D on a less protective case-by-case basis. Generally, Alternative D management is between alternatives A and B in that it employs a more proactive management approach than Alternative A, but does not provide the same degree of protective measures as Alternative B.

Activities that disturb the surface are allowed under all alternatives, and these activities can impact scenic values. Visual Resource Management (VRM) Classes establish a measurable standard for the amount of change allowed to visual resources in a specific area, and comparing VRM Classes to the planning area's Visual Resources Inventory (VRI) Classes, or the baseline for scenic values in the planning area, provides an indicator of the level of impact to visual resources from the alternatives. VRI Classes I or II that are designated as VRM III or IV constitutes an adverse impact to visual resources. This is due to the fact that such a designation exposes these high value scenic resources to a management scenario that allows for moderate to high levels of contrast within the existing environment. Whereas VRI Classes III or IV that are designated as I or II marks a beneficial impact to visual resources. As such, Alternative B would result in the greatest beneficial impact to visual resources, with Alternative D also benefiting scenic values. Alternative C will have the highest level of adverse impact on visual resources with nearly 97 percent of VRI Class I and II areas being managed as VRM Class III or IV. Alternative A has nearly 75 percent of VRI Class I and II areas being managed as VRM Class III or IV. Overall, Alternative B manages the majority of scenic features as VRM Class II, with Alternative D managing slightly less scenic features as VRM Class II than Alternative B. Alternative C would result in the most adverse affect to scenic features by managing most of these areas as VRM Class III or IV.

Land Resources

Land Resources include lands and realty, renewable energy, ROWs and corridors, comprehensive trails and travel management, livestock grazing, and recreation. Included in the lands and realty program are land tenure adjustments (e.g., sales, exchanges, acquisitions), land use authorizations (i.e., leases and permits), withdrawals, classifications, and segregations.

Impacts to the lands and realty program results from implementing the alternatives which include land tenure adjustments, withdrawals, and management that makes realty actions more difficult to complete. The biggest difference among the alternatives is in the segregation of lands to pursue locatable mineral withdrawal. Withdrawals close areas to operation of the General Mining Law and can limit the application of other public land laws (depending upon the withdrawal order) and could result in long-term adverse impacts to the lands and realty program by limiting or

restricting lands and realty actions in these areas. Alternative A continues withdrawals identified in the 1987 RMP, but proposes no new withdrawals. Under Alternative B, 1,632,605 acres (68 percent of the planning area) are withdrawn, while under Alternative D, 42,855 acres (an increase of 90 percent over Alternative A) are withdrawn. Under Alternative C, no new withdrawals are identified and all existing withdrawals except for the Yermo threatened and endangered species withdrawal are allowed to expire. As mentioned under the *Mineral Resources* section above, approximately 8,364 acres are existing pre-FLPMA withdrawals which do not expire and would apply under each alternative.

Renewable energy management focuses on wind energy in the planning area. Direct impacts to wind-energy development result from the designation of renewable energy avoidance and exclusion areas. Alternative C manages the largest area as open for wind-energy development (2,284,235 acres), and would therefore result in the greatest beneficial impacts. Open areas would be similar to Alternative C under Alternative A (2,113,512 acres), but substantially smaller under alternatives D (459,720 acres) and B (41,372 acres).

ROWs are for infrastructure and facilities, including wind-energy development, that are in the public interest and require authorization for location over, under, on, or through BLM-administered land. Adverse impacts to ROWs and designated corridors result from management actions for other resources that limit, prohibit, or otherwise decrease the potential for ROWs. Alternative C would result in the least impact to ROWs by managing the least area as ROW avoidance and exclusion areas (158,767 acres), followed by alternatives A (272,015 acres), D (1,877,298 acres) and B (2,234,248 acres).

The trails and travel management program is considered a support function for all BLM resource programs and, as such, the program goals are: provide and improve sustainable access for public needs and experiences; protect natural resources and settings; minimize conflicts among the various users of BLM-administered lands. Because of these somewhat divergent goals, blanket statements of adverse and beneficial impacts are not possible. Instead, impacts to trails and travel management are based on a given area's travel management focus or priority (e.g., resource protection focused or public access focused). An increased resource protection focus for the travel management system would occur on 185,253 acres under Alternative A, 276,338 acres under Alternative B, and 56,247 acres under Alternative C; Alternative D would be similar to Alternative B. For each alternative, the decisions across the remainder of the planning area would result in travel management systems focused on increased access. To manage travel, the alternatives include limitations on certain types of travel; an increased level of travel management (e.g., more areas limited to designated roads and trails or closures to cross-country motorized travel) increases resource protection and decreases access. Alternative B limits the most acreage to designated roads and trails in the planning area (193,704 acres), followed by alternatives A (163,075 acres), D (154,912 acres), and C (50,776 acres). Alternative B also closes the largest acreage to motorized vehicle use (71,761 acres), followed by alternatives D (25,425 acres), A (5,923 acres), and C (5,472 acres); closures are adverse impacts to trails and travel management. Alternatives A and C allow cross-country motorized travel for necessary tasks in areas where motorized vehicle use is limited to existing roads and trails. Alternatives B and D prohibit, with some exceptions, motorized cross-country travel in areas with limited travel designations.

The primary impacts to livestock grazing result from management that alters the area available to livestock grazing, constrains the placement or types of range improvements, changes the number of animal unit months (AUMs) available to operators, alters rangeland health, or changes the cost associated with livestock grazing management. Alternative B would result in the

greatest adverse impact to livestock grazing; Alternative C would result in the greatest beneficial impact. Alternative B places the most restrictions on livestock use of forage and the placement and construction of range improvements. In addition, Alternative B closes lands in elk and bighorn sheep crucial winter range in the Dubois area (Map 3), which would result in the loss of approximately 792 AUMs. Alternative C places the fewest restrictions on livestock grazing management and expands the areas where range improvements can be placed for use by grazing livestock. Impacts to livestock grazing under Alternative A would generally fall somewhere between alternatives C and B, and this alternative is the most likely to apply management on a case-by-case basis. Alternative D develops rangeland infrastructure when necessary to implement comprehensive grazing management strategies and avoids projects that would expand grazing on the landscape without a clear link to a comprehensive grazing strategy and consideration of other resources. Alternatives A, C, and D are all likely to result in a moderate utilization level (41-60 percent) with utilization levels under Alternative D variable based upon implementation of a comprehensive grazing strategy or as needed to address vegetation objectives. Light utilization levels, generally corresponding to 21-40 percent would result under Alternative B.

Impacts to recreation are those that affect the recreational setting, the recreational experience of users, or the ability of recreationists to achieve desired beneficial outcomes from the use of public lands. Recreation management under the alternatives reflects the diversity of visitor preferences in the planning area, and adverse impacts to the experience of some recreational users may be beneficial impacts to the experience of others. For example, primitive settings benefit nonmotorized recreation and limit access to motorized recreation. Under all of the alternatives, the amount of acres trending towards an urban/industrialized setting is greater than the amount of acres trending towards a primitive setting. The primitive setting would expand the most under Alternative B, followed by alternatives D, A, and C. Under alternatives A and C, visitor services are least responsive to visitor demands for recreation settings, activities, and/or outcomes, resulting in adverse impacts to recreationists. Alternatives B and D increase visitor services in all important recreation areas and provide allowable use decisions that ensure the future recreational enjoyment of these areas, with the main differences being that Alternative D manages less area towards a primitive setting and identifies fewer actions to enhance wildlife-dependent recreation.

Special Designations

Special Designations include ACECs, Congressionally Designated Trails, WSRs, and WSAs. The BLM designates ACECs to protect resources, natural systems, and natural hazards (referred to as the ACEC values of concern). Values of concern for ACECs proposed in the planning area include cultural, scenic, and wildlife values. To protect the values of concern, ACECs include restrictions on mineral development and other surface-disturbing activities (e.g., mechanical fuels treatments and range improvements) or motorized vehicle use. Alternative B would designate more area as ACECs than all of the alternatives, encompassing almost 62 percent of BLM-administered land in the planning area. ACECs designated under Alternative D encompass over 10 percent of BLM-administered land in the planning area and twice as much acreage (245,037 acres) as the area designated under Alternative A (119,622 acres). Alternative C does not designate any ACECs. Alternative B would be the most effective at protecting the values of concern within ACECs by restricting resource uses and activities within these areas, followed by alternatives D, A, and C respectively.

The planning area contains the Congressionally designated Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails (NHTs). Adverse impacts to NHTs result mostly from surface-disturbing activities and increased public access that may physically destroy parts of an

NHT, alter a significant element of an NHT, or introduce elements that diminish the historic integrity of an NHT. Alternative A and C manage NHTs similarly, focusing on protecting the immediate area around the NHTs but not addressing visual impacts farther away from the trails. However, Alternative A applies some additional protective management of NHTs compared Alternative C, such as avoiding major ROWs within ¼ mile. Alternative B provides more protection for the immediate area around NHTs and the extended historic setting, such as excluding ROWs outside of designated corridors within 20 miles of NHTs. Alternative D protects the historic setting of the NHTs from visual impacts similarly to Alternative B, but to a lesser extent. Alternatives B and D also manage recreational use of the trails for beneficial outcomes and to protect their visual resources, while alternatives A and C do not.

Protecting or enhancing their free-flowing characteristics and outstanding remarkable values (ORVs) – including scenic, recreational, and wildlife values – are the primary management objectives for WSR eligible waterways. Recommending a waterway as suitable for inclusion in the NWSRS would have the greatest benefit to eligible waterways. If a waterway is not managed to preserve its suitability for the NWSRS, impacts would vary based on the degree to which overlapping management from other resource programs protect the waterways' ORVs. Overall, Alternative B would result in the most beneficial impacts to WSR eligible waterways, followed by alternatives D, A, and C. Alternative A continues to manage WSR eligible waterways to maintain their ORVs, but does not make suitability determinations to recommend eligible waterways for inclusion in the NWSRS. Subjecting eligible waterways to case-by-case actions under the existing plan may result in contrasting management stipulations, allowing varying degrees of resource uses and development that threaten free-flowing characteristics and ORVs. Alternative B recommends all nine eligible waterways for inclusion in the NWSRS, and would provide the most protection for their ORVs and free-flowing characteristics. Alternative D recommends two eligible waterways (Baldwin Creek Unit and the Sweetwater Unit) for inclusion in the NWSRS and manages the other eligible waterways to improve characteristics that would improve future suitability classification. Alternative C recommends no WSR eligible waterways for inclusion in the NWSRS and, in general, does not require management of these areas that would preserve their ORVs.

Under all of the alternatives, the BLM manages WSAs under the Interim Management Policy and Guidelines for Lands under Wilderness Review, which restricts discretionary activities in WSAs to ensure that their suitability for Wilderness designation is not impaired. Wilderness characteristics include naturalness and opportunities for solitude and primitive/unconfined recreation. Although there are limited discretionary actions the BLM can take that would affect WSAs, management under Alternative B would result in the greatest beneficial impacts to WSAs by emphasizing resource protection and limiting activities, such as motorized and mechanized vehicle use, that may impact wilderness characteristics. Alternatives A, C, and D include similar management for WSAs, except that Alternative D closes the Copper Mountain and Whiskey Mountain WSAs to motorized vehicle use to better protect wilderness characteristics in these areas.

Socioeconomic Resources

Socioeconomic resources include social conditions, economic conditions, health and safety, environmental justice, and tribal treaty rights.

Impacts to social conditions in the planning area include changes in population, such as fluctuations caused by economic boom and bust cycles; changes in the demand for housing and community services along with community fiscal conditions, which can impact the ability of state, regional, and local governments to supply community services such as education; and changes in

community character, culture, and social trends. Social conditions are closely tied to economic impacts, including changes in regional economic output, employment, and earnings, and in tax revenues for the local, state, and federal governments. Earnings, output, employment, and tax revenues due to activities on BLM-administered surface and mineral estate, based on modeling as well as qualitative analysis of economic activity from other sectors, would be highest under alternatives A and C, slightly less under Alternative D, and substantially less under Alternative B. Impacts on the social conditions in the planning area would be greatest from reduced oil and gas development and livestock grazing and increased emphasis on recreational opportunities and land preservation under Alternative B. Conversely, under current management (Alternative A) and Alternative C, more areas open to oil and gas development would bring more job opportunities, greater demand for community services, and greater tax revenues to local governments, allowing them to expand community services to meet the needs of a slightly larger population. Alternative D balances the resource conservation and development approaches, but its impacts to social conditions are generally closer to alternatives A and C.

Programs to manage health and safety include the management of Abandoned Mine Lands (AMLs), coalbed fires, physical hazards, and hazardous substances. Impacts to the health and safety program would result from management that affects the risk of accidents in the areas in which AMLs, geologic hazards, or hazardous waste and materials spills or releases occur. Beneficial impacts to health and safety from management of AML sites and coalbed fires would occur under all alternatives. Under all alternatives, the BLM and Wyoming Department of Environmental Quality (DEQ) will identify and plan for remediation of AML and coalbed fire sites which would result in adverse impacts to health and safety. Under all alternatives, the BLM expects the impacts from management of hazardous substances to be similar. Alternative C, with the greatest amount of mineral activity, could increase the generation, use, transportation, and disposal of hazardous substances, but spill response plans, stipulations, and applicable laws and regulations would reduce potential impacts.

While minority and low-income populations exist in the planning area, no particular BLM actions proposed under any of the alternatives would result in disproportionate adverse impacts to these populations.

Impacts to tribal treaty rights can include limitations on access to tribal hunting, fishing, or resource collection areas that were reserved by certain treaty. Impacts to such resources are usually identified on a project specific basis, in consultation with the appropriate tribes.

The Next Steps

The BLM will accept public comment on this Draft RMP and EIS for 90 days. A series of seven public meetings on this Draft RMP and EIS are scheduled in the planning area during the 90-day comment period. Following the 90-day public comment period, the BLM will prepare a Final EIS considering comments submitted. The Final EIS and Proposed RMP is scheduled for release in spring 2012 with a ROD scheduled for fall 2012.